



323 GX

Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

Table of Contents

Specifications	2
Engine	2
Swing Mechanism	2
Weights	2
Track	2
Drive	2
Hydraulic System	2
Service Refill Capacities	2
Standards	2
Sound Performance	2
Operating Weights and Ground Pressures	3
Major Component Weights	3
Dimensions	4
Working Ranges	5
Bucket Specifications and Compatibility	6
Attachments Offering Guide	6
Standard and Optional Equipment	7
Dealer Installed Kits and Attachments	8
323 GX Environmental Declaration	9

323 GX Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C4.4	
Net Power		
ISO 9249	123.7 kW	166 hp
ISO 9249 (DIN)	168 hp (metric)	
Engine Power		
ISO 14396	129.4 kW	174 hp
ISO 14396 (DIN)	176 hp (metric)	
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in ³
Biodiesel capability	Up to B20 ⁽¹⁾	

- The 323 GX meets China Nonroad Stage IV emission standards.
- Recommended for use up to 4500 m (14,764 ft) altitude with engine power derate above 3000 m (9,842 ft).
- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.
- Engine speed at 2,000 rpm.

⁽¹⁾Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to:

- ✓ 20% biodiesel FAME (fatty acid methyl ester)*
- ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

***Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

Swing Mechanism

Swing Speed	11.13 rpm	
Maximum Swing Torque	82 kN·m	60,333 lbf·ft

Weights

Operating Weight	21 800 kg	48,060 lb
• Medium undercarriage, Reach boom, R2.9B1 (9'6") stick, General Duty (GD) 1.3 m ³ (1.7 yd ³) bucket, 600 mm (24") triple grouser shoes and 4550 kg (10,000 lb) counterweight.		

Track

Track Shoes Width	600 mm	24 in
Number of Shoes (each side)	47	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35° +/-70%	
Maximum Travel Speed	5.7 km/h	3.5 mph
Maximum Drawbar Pull	200 kN	44,849 lbf

Hydraulic System

Main System – Maximum Flow – Implement	429 L/min (214.5 × 2 pumps)	113.4 gal/min (56.7 × 2 pumps)
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	27 500 kPa	3,988 psi
Boom Cylinder – Bore	120 mm	5 in
Boom Cylinder – Stroke	1260 mm	50 in
Stick Cylinder – Bore	140 mm	6 in
Stick Cylinder – Stroke	1504 mm	59 in
Bucket Cylinder – Bore	120 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

Service Refill Capacities

Fuel Tank Capacity	390 L	103 gal
Cooling System	24.5 L	6.5 gal
Engine Oil	15 L	4 gal
Swing Drive	5.5 L	1.5 gal
Final Drive (each)	4.5 L	1.2 gal
Hydraulic System (including tank)	218 L	57.6 gal
Hydraulic Tank	115 L	30.4 gal

Standards

Brakes	ISO 10265:2008
Cab/Operator Protective Guards (OPG) (optional)	ISO 10262:1998 Level II

Sound Performance

GB 16710:2010 (external)	105 dB(A)
GB 16710:2010 (inside cab)	80 dB(A)

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.
- Compliant to China Standard GB 16710-2010 Phase II.

323 GX Hydraulic Excavator Specifications

Operating Weights and Ground Pressures

Base Frame with Track Rollers and Carrier Rollers	600 mm (24 in) Triple Grouser Shoes	
	Weight	Ground Pressure
Base Machine with 4550 kg (10,000 lb) Counterweight and Medium Undercarriage	kg (lb)	kPa (psi)
Reach Boom + R2.9B1 (9'6") Stick + 1.3 m ³ (1.7 yd ³) GD Bucket	21 800 (48,060)	47.8 (6.9)

All operating weights include a 90% fuel tank with 75 kg (165 lb) operator.

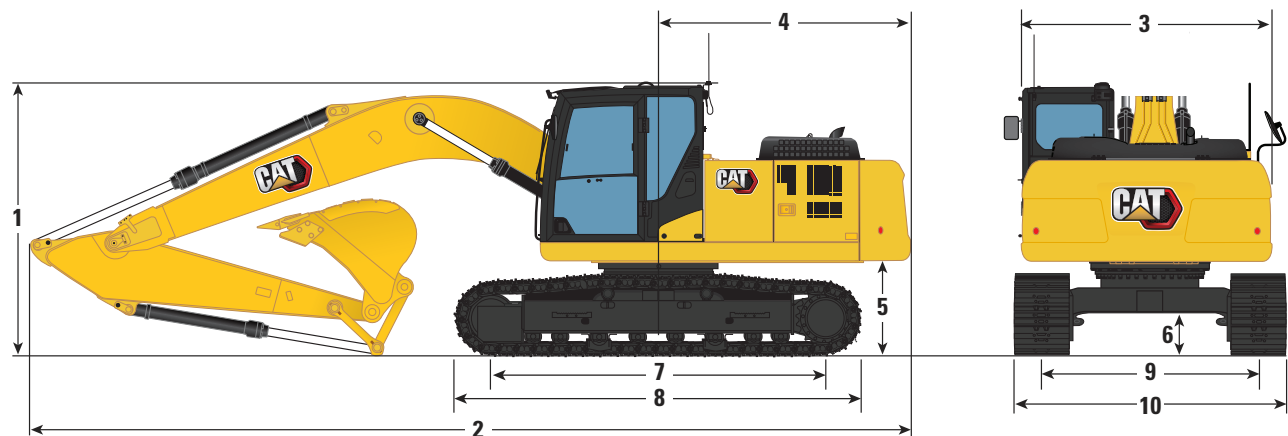
Major Component Weights

	kg	lb
Base Machine (with 4550 kg [10,000 lb] counterweight, upper frame, Medium undercarriage with rollers and two boom cylinders – does not include boom, stick, bucket, stick cylinder, bucket cylinder, tracks, 90% fuel tank and 75 kg [165 lb] operator).	15 100	33,300
Track Shoes:		
600 mm (24") Width, 10 mm (0.39") Thick Triple Grouser Track Shoes	2700	5,960
Two Boom Cylinders	360	800
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	380	840
Counterweight:		
4550 kg (10,000 lb) Counterweight	4550	10,000
Booms (including lines, pins, stick cylinder):		
Reach Boom 5.7 m (18'8")	1690	3,720
HP Tool Control Lines for Reach Boom 5.7 m (18'8")	80	180
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick R2.9B1 (9'6")	1060	2,340
HP Tool Control Lines for Reach Stick R2.9B1 (9'6")	50	110
Buckets (without linkage, with tips and side cutters):		
1.2 m ³ (1.57 yd ³) GDX	870	1,920
1.3 m ³ (1.7 yd ³) GD	890	2,000

323 GX Hydraulic Excavator Specifications

Dimensions

All dimensions are approximate and may vary depending on bucket selection.



Boom Option

Reach Boom
5.7 m (18'8")

Stick Options

Reach Stick
R2.9B1 (9'6")

1 Machine Height:

Top of Cab Height	2960 mm	9'9"
Top of OPG Height	3100 mm	10'2"
Handrail Height	3030 mm	9'11"
With Boom/Stick/Bucket Installed	3130 mm	10'3"
With Boom/Stick Installed	3060 mm	10'0"
With Boom Installed	2960 mm	9'9"

2 Machine Length:

With Boom/Stick/Bucket Installed	9515 mm	31'3"
With Boom/Stick Installed	9510 mm	31'2"
With Boom Installed	8500 mm	27'11"

3 Upperframe Width	2740 mm	9'0"
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4 Tail Swing Radius	2830 mm	9'3"
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5 Counterweight Clearance	1046 mm	3'5"
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6 Ground Clearance	468 mm	1'6"
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7 Track Length – Length to Center of Rollers	3445 mm	11'4"
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8 Track Length – Crawler Overall Length	4250 mm	13'11"
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9 Track Gauge – Extended	2380 mm	7'10"
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10 Undercarriage Width – 600 mm (24") Shoe	2980 mm	9'9"
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Bucket Type	GD	
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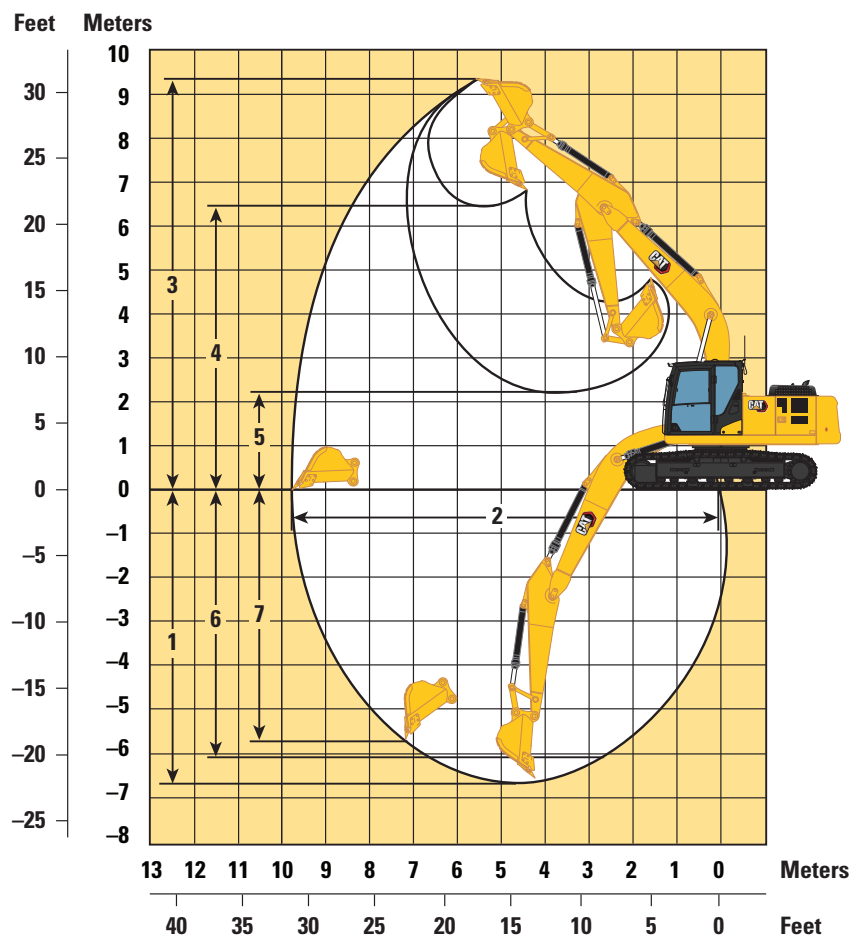
Bucket Capacity	1.3 m ³	1.7 yd ³
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Bucket Tip Radius	1522 mm	5'0"
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323 GX Hydraulic Excavator Specifications

Working Ranges

All dimensions are approximate and may vary depending on bucket selection.



Boom Option

Reach Boom
5.7 m (18'8")

Stick Options

Reach Stick
R2.9B1 (9'6")

1 Maximum Digging Depth	6660 mm	21'10"
2 Maximum Reach at Ground Line	9810 mm	32'2"
3 Maximum Cutting Height	9440 mm	31'0"
4 Maximum Loading Height	6550 mm	21'6"
5 Minimum Loading Height	2230 mm	7'4"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6490 mm	21'4"
7 Maximum Vertical Wall Digging Depth	5530 mm	18'2"
Minimum Working Equipment Radius	3650 mm	12'0"
Bucket Digging Force (ISO)	142 kN	31,428 lbf
Stick Digging Force (ISO)	107 kN	31,923 lbf
Bucket Type	GD	
Bucket Capacity	1.3 m ³	1.7 yd ³
Bucket Tip Radius	1522 mm	5'0"

323 GX Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	Reach Boom
		mm	in	m³	yd³	kg	lb	%	R2.9 (9'6")
Pin-On (No Quick Coupler)									
General Duty Excavation	B	1250	49	1.20	1.57	879	1,938	100	⦿
General Duty	B	1300	51	1.30	1.70	890	1,962	100	⦿
Maximum load with pin-on (payload + bucket)								kg	3204
								lb	7,064

The above loads are in compliance with hydraulic excavator standard EN474-5:2006+A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.
Capacity based on ISO 7451:2007.
Bucket weight with General Duty tips.

Maximum Material Density:
⦿ 1800 kg/m³ (3,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Attachments Offering Guide

Not all attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

☒ Match ☐ † Allowed usage on machine less than 50%

PIN-ON ATTACHMENTS

Boom Type	Reach
Stick Length	R2.9 m (9'6")
Hydraulic Hammers	H120 GC ✓
	H120 GC Side-Mount ✓
	H120 GC S ✓
	H120 S ✓
	H130 S ✓†
	H140 Side-Mount ✓
Compactors (Vibratory Plate)	CVP110 ✓

323 GX Standard and Optional Equipment

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
BOOMS, STICKS AND LINKAGES			ENGINE		
5.7 m (18'8") Reach boom	✓		Cat 4.4 twin turbo diesel engine	✓	
2.9 m (9'6") Reach stick	✓		Two selectable modes: Power, Smart	✓	
Bucket linkage, B1 type without lifting eye	✓		Up to 4500 m (14,764 ft) altitude capability with derate from 3000 m (9,840 ft)	✓	
CAB			52° C (125° F) high-ambient cooling capacity	✓	
Sound suppressed cab with viscous mounts	✓		-25° C (-13° F) cold start capability	✓	
High-resolution 203 mm (8") LCD touchscreen monitor	✓		Electric fuel priming pump	✓	
Mechanical-suspension seat with head rest and arm rest	✓		Direct drive fan	✓	
51 mm (2") orange seat belt	✓		Two-stage fuel filtration system with water separator and indicator	✓	
Auto bi-level air conditioner	✓		Sealed double element air filter with pre-cleaner	✓	
Keyless push-to-start engine control	✓		HYDRAULIC SYSTEM		
Fixed left-side console	✓		Electronic main control valve, hammer ready	✓	
1-button joysticks	✓		Tandem-type electronic pump	✓	
3-button joysticks		✓	Boom and stick regeneration circuits	✓	
AM/FM Bluetooth® radio with USB/Auxiliary ports	✓		Automatic hydraulic oil warm up	✓	
Speakers (mounted on roof)	✓		Automatic two-speed travel	✓	
24V DC outlet	✓		Hammer lines for boom and stick		✓
Storage compartments	✓		Hammer return filter	✓	
Cup holder	✓		High performance hydraulic return filter	✓	
70/30 tempered glass windshield	✓		SAFETY AND SECURITY		
Rear window emergency exit	✓		Anti-skid plating with countersunk bolts	✓	
Radial wiper with washer	✓		OPG with matching lights		✓
Openable steel hatch	✓		Handrail and handhold	✓	
LED dome light	✓		Lockable external tool/storage box	✓	
Washable floor mat	✓		Ground-level secondary engine shutoff switch	✓	
ELECTRICAL SYSTEM			Lockable disconnect switch	✓	
Two 750 CCA maintenance-free batteries	✓		Signaling/warning horn	✓	
Electrical disconnect switch	✓		Swing alarm		✓
LED chassis and cab lights	✓		Hydraulic lockout lever	✓	
LED Left-side boom light	✓		Rearview camera		✓
LED Right-side boom light		✓	Right-hand-side mirror	✓	

(continued on next page)

323 GX Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
SERVICE AND MAINTENANCE			UNDERCARRIAGE AND STRUCTURES		
Grouped engine oil and fuel filters	✓		600 mm (24") triple grouser track shoes	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓		Grease lubricated track link	✓	
Radiator screen		✓	Center track guiding guard	✓	
			Bottom guards	✓	
			Travel motor guards	✓	
			OPG guard		✓
			4550 kg (10,000 lb) counterweight	✓	
			Tie-down points	✓	

323 GX Attachments

Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

GUARDS

- 6 mm (0.24") standard swivel guard
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front

SERVICE PART

- Hammer floor pedal kit
- Grease gun holder

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The 323 GX meets China Nonroad Stage IV emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to:

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Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

***Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg (1.87 lb) of refrigerant which has a CO₂ equivalent of 1.216 metric tonnes (1.340 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

GB 16710:2010 (external) – 105 dB(A)

GB 16710:2010 (inside cab) – 80 dB(A)

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.
- Compliant to China Standard GB 16710-2010 Phase II.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The 323 GX uses up to 15% less fuel than the 320D2 L in similar applications. The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - Smart mode matches machine power to digging requirements automatically
 - Automatic Engine Control reduces engine speed when the machine is not under load to minimize fuel consumption
 - Cut maintenance costs up to 20% with enhanced filters and extended service intervals
 - The latest hydraulic oil filter provides longer life with a 3,000-hour replacement interval – 50% longer than previous filter designs

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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Build Number: 05E
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