323 GX

Hydraulic Excavator

Technical Specifications

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

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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)]	

- Cat C4.4 engine emits equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- 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 engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:

- ✓ 100% 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.

**For use of blends higher than 20% biodiesel, consult your Cat dealer.*

Swing Mechanism

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

Weights

Operating Weight	21 500 kg	47,500 lb

- Reach boom, R2.9B1 (9'6") stick, GD 1.2 m^3 (1.57 yd^3) bucket, 600 mm (24") triple grouser shoes and 4250 kg (9,370 lb) counterweight.

Operating Weight	22 100 kg	48,700 lb

- Reach boom, R2.9B1 (9'6") stick, GD 1.2 m^3 (1.57 yd^3) bucket, 790 mm (31") triple grouser shoes and 4250 kg (9,370 lb) counterweight.

Track

Optional Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	790 mm	31 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	3.6 mph
Maximum Drawbar Pull	200 kN	44,917 lbf

Hydraulic System

Main System – Maximum Flow – Implement	429 L/min (214.5 × 2 pumps)	113 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/Falling Object Guard System (FOGS) (optional)	ISO 10262:1998 Level II

Sound Performance

GB 16710 (inside cab): 80 dB(A)

- Compliant to China Standard GB 16710-2010 Phase II.
- 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.

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 of refrigerant, which has a CO_2 equivalent of 1.216 metric tonnes.

Operating Weights and Ground Pressures

	600 mm (24 in) Triple Grouser Shoes		790 mm (31 in) Triple Grouser Shoes	
Base Machine Configurations	**Weight**	**Ground Pressure**	**Weight**	**Ground Pressure**
Base Frame with Track Rollers and Carrier Rollers				
4250 kg (9,370 lb) Counterweight and 4.25 m (13'11") Undercarriage Base Machine	**kg (lb)**	**kPa (psi)**	**kg (lb)**	**kPa (psi)**
Reach Boom + R2.9B1 (9'6") Stick + 1.2 m^3 (1.57 yd^3) GD Bucket + HP tool control lines	21 500 (47,500)	47.1 (6.8)	22 100 (48,700)	36.8 (5.3)

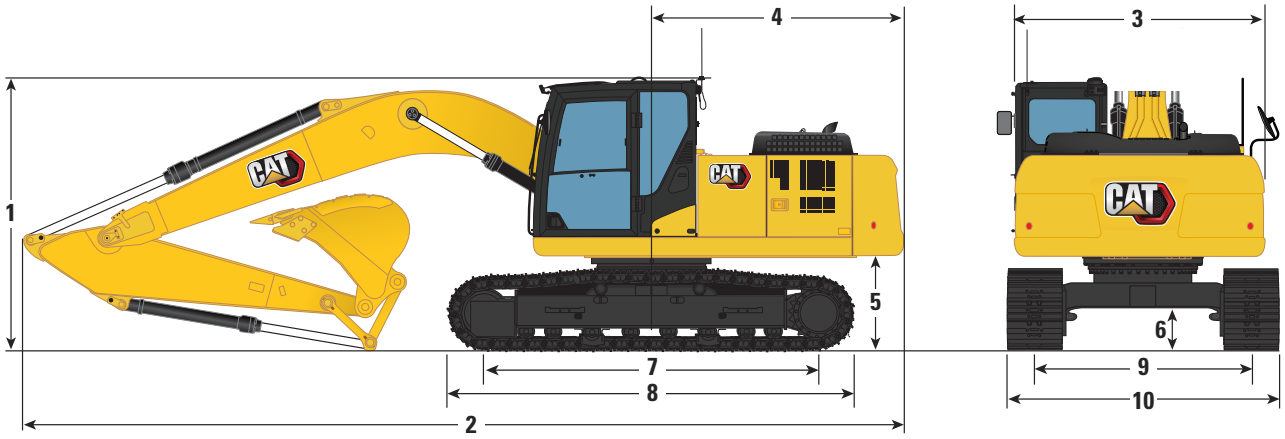
All operating weights include a 90% fuel tank with 75 kg (165 lb) operator.

Major Component Weights

	kg	lb
Base Machine (with 4250 kg [9,370 lb] counterweight, upper frame, 4.25 m [13'11"] 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).	14 700	32,410
Track Shoes:		
600 mm (24") Width, 10 mm (0.39") Thick Triple Grouser Track Shoes	2700	5,960
790 mm (31") Width, 10 mm (0.39") Thick Triple Grouser Track Shoes with Step Extension	3210	7,100
Two Boom Cylinders	360	800
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	380	840
Counterweight:		
4250 kg (9,370 lb) Counterweight	4250	9,370
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) GD with J-Tips	870	1,930
1.19 m^3 (1.56 yd^3) GD with Advansys™ Tips	890	1,970

Dimensions

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

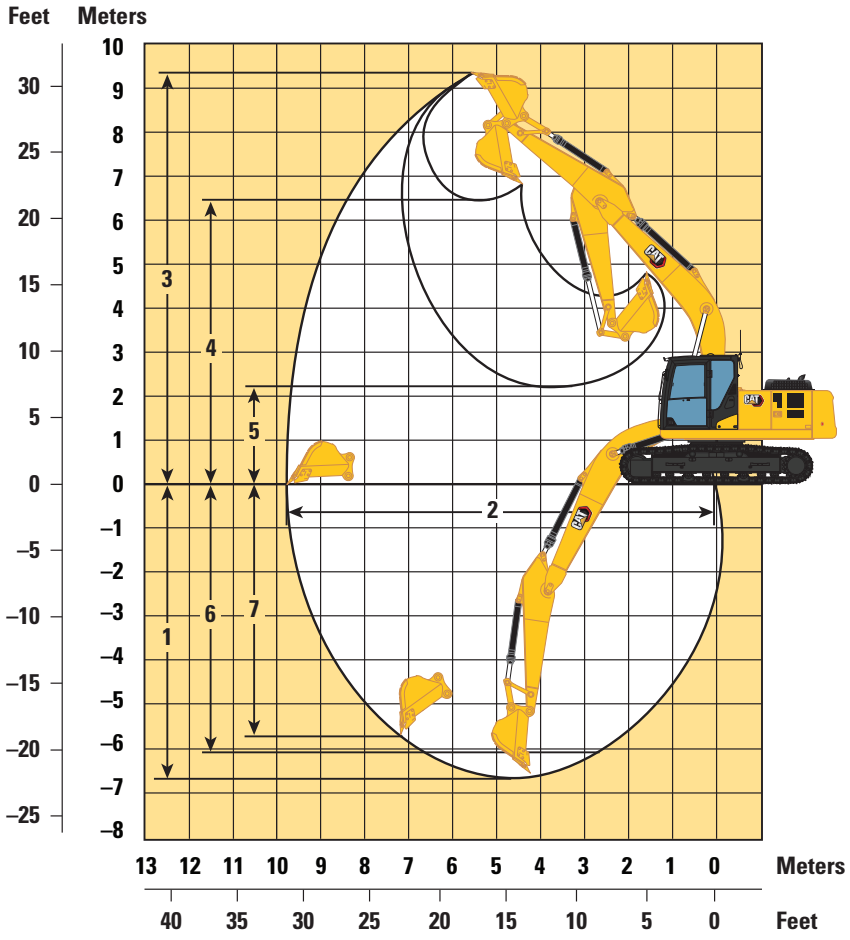


Boom Option	Reach Boom 5.7 m (18'8")	
Stick Option	**Reach Stick R2.9B1 (9'6")**	
1 Machine Height:		
Top of Cab Height	2960 mm	9'9"
Top of FOGS Height	3100 mm	10'2"
Handrail Height	3030 mm	9'11"
With Boom/Stick/Bucket Installed	3130 mm	10'3"
With Boom/Stick Installed	3060 mm	10'0"
With Boom Installed	2960 mm	9'9"
2 Machine Length:		
With Boom/Stick/Bucket Installed	9520 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"
4 Tail Swing Radius	2830 mm	9'3"
5 Counterweight Clearance	1050 mm	3'5"
6 Ground Clearance	470 mm	1'6"
7 Track Length – Length to Center of Rollers	3450 mm	11'4"
8 Track Length – Crawler Overall Length	4250 mm	13'11"
9 Track Gauge	2380 mm	7'10"
10 Undercarriage Width:		
600 mm (24") Shoes	2980 mm	9'9"
790 mm (31") Shoes	3170 mm	10'5"
Bucket Type	GD	
Bucket Capacity	1.20 m^3	1.57 yd^3
Bucket Tip Radius	1572 mm	5'2"

323 GX Hydraulic Excavator Specifications

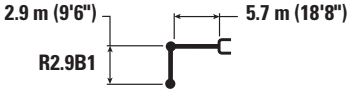
Working Ranges

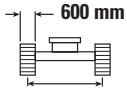
All dimensions are approximate and may vary depending on bucket selection.

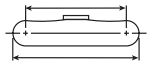


Boom Option	Reach Boom 5.7 m (18'8")	
Stick Option	**Reach Stick R2.9B1 (9'6")**	
1 Maximum Digging Depth	6710 mm	22'0"
2 Maximum Reach at Ground Line	9860 mm	32'4"
3 Maximum Cutting Height	9470 mm	31'1"
4 Maximum Loading Height	6500 mm	21'4"
5 Minimum Loading Height	2180 mm	7'2"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6020 mm	19'9"
7 Maximum Vertical Wall Digging Depth	5740 mm	18'10"
Minimum Working Equipment Radius	3650 mm	12'0"
Bucket Digging Force (ISO)	140 kN	31,428 lbf
Stick Digging Force (ISO)	107 kN	23,942 lbf
Bucket Type	GD	
Bucket Capacity	1.20 m^3	1.57 yd^3
Bucket Tip Radius	1572 mm	5'2"

Reach Boom Lift Capacities – Counterweight: 4250 kg (9,370 lb) – without Bucket







		1500 mm/5'0"		3000 mm/10'0"		4500 mm/15'0"		6000 mm/20'0"		7500 mm/25'0"				
														mm ft/in
7500 mm **25'0"**	kg **lb**							*4550	*4550			*3900 ***8,650**	*3900 ***8,650**	6160 **19'9"**
6000 mm **20'0"**	kg **lb**							*4950 ***10,800**	*4950 ***10,800**			*3600 ***7,950**	*3600 ***7,950**	7290 **23'9"**
4500 mm **15'0"**	kg **lb**							*5450 ***11,800**	5250 **11,250**	*5100 ***11,150**	3700 **7,900**	*3550 ***7,750**	3350 **7,350**	7990 **26'1"**
3000 mm **10'0"**	kg **lb**					*7950 ***17,100**	7600 **16,400**	*6250 ***13,500**	5000 **10,750**	5150 **11,100**	3600 **7,750**	*3600 ***7,950**	3050 **6,700**	8350 **27'5"**
1500 mm **5'0"**	kg **lb**					*9600 ***20,700**	7150 **15,350**	7000 **15,100**	4750 **10,250**	5050 **10,850**	3500 **7,500**	*3850 ***8,450**	2950 **6,450**	8440 **27'8"**
0 mm **0'0"**	kg **lb**			*6250 ***14,300**	*6250 ***14,300**	*10 500 ***22,750**	6850 **14,750**	6850 **14,700**	4600 **9,900**	4950 **10,650**	3400 **7,300**	*4250 ***9,350**	3000 **6,550**	8250 **27'1"**
–1500 mm **–5'0"**	kg **lb**	*6650 ***14,900**	*6650 ***14,900**	*10 800 ***24,450**	*10 800 ***24,450**	10 550 **22,650**	6800 **14,550**	6750 **14,500**	4550 **9,750**	4950 **10,600**	3400 **7,250**	4700 **10,350**	3250 **7,100**	7770 **25'6"**
–3000 mm **–10'0"**	kg **lb**	*11 450 ***25,650**	*11 450 ***25,650**	*14 050 ***30,450**	13 200 **28,300**	*9950 ***21,450**	6850 **14,700**	6800 **14,600**	4550 **9,850**			5550 **12,300**	3800 **8,400**	6940 **22'8"**
–4500 mm **–15'0"**	kg **lb**			*11 200 ***23,950**	*11 200 ***23,950**	*8050 ***17,100**	7050 **15,150**					*6100 ***13,350**	5250 **11,750**	5580 **18'0"**

* **ISO 10567**

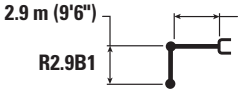
*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

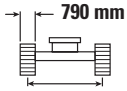
Lift capacity stays with ±5% for all available track shoes.

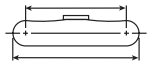
Always refer to the appropriate Operation and Maintenance Manual for specific product information.

323 GX Hydraulic Excavator Specifications

Reach Boom Lift Capacities – Counterweight: 4250 kg (9,370 lb) – without Bucket







		1500 mm/5'0"		3000 mm/10'0"		4500 mm/15'0"		6000 mm/20'0"		7500 mm/25'0"				
														mm ft/in
7500 mm **25'0"**	kg **lb**							*4550	*4550			*3900 ***8,650**	*3900 ***8,650**	6160 **19'9"**
6000 mm **20'0"**	kg **lb**							*4950 ***10,800**	*4950 ***10,800**			*3600 ***7,950**	*3600 ***7,950**	7290 **23'9"**
4500 mm **15'0"**	kg **lb**							*5400 ***11,800**	5350 **11,500**	*5100 ***11,500**	3800 **8,100**	*3550 ***7,750**	3400 **7,500**	7990 **26'1"**
3000 mm **10'0"**	kg **lb**					*7950 ***17,100**	7750 **16,750**	*6250 ***13,500**	5100 **11,000**	5300 **11,350**	3700 **7,900**	*3600 ***7,950**	3100 **6,850**	8350 **27'5"**
1500 mm **5'0"**	kg **lb**					*9600 ***20,700**	7300 **15,700**	*7050 ***15,300**	4900 **10,500**	5150 **11,100**	3550 **7,650**	*3850 ***8,450**	3000 **6,600**	8440 **27'8"**
0 mm **0'0"**	kg **lb**			*6250 ***14,300**	*6250 ***14,300**	*10 500 ***22,750**	7000 **15,100**	7000 **15,050**	4700 **10,150**	5100 **10,900**	3500 **7,500**	*4250 ***9,350**	3050 **6,700**	8250 **27'1"**
–1500 mm **–5'0"**	kg **lb**	*6650 ***14,900**	*6650 ***14,900**	*10 800 ***24,450**	*10 800 ***24,450**	*10 600 ***23,000**	6950 **14,900**	6900 **14,850**	4650 **10,000**	5050 **10,850**	3450 **7,450**	4800 **10,600**	3300 **7,300**	7770 **25'6"**
–3000 mm **–10'0"**	kg **lb**	*11 450 ***25,650**	*11 450 ***25,650**	*14 050 ***30,450**	13 500 **28,900**	*9950 ***21,450**	7000 **15,050**	6950 **14,950**	4650 **10,050**			5700 **12,600**	3900 **8,600**	6940 **22'8"**
–4500 mm **–15'0"**	kg **lb**			*11 200 ***23,950**	*11 200 ***23,950**	*8050 ***17,100**	7200 **15,500**					*6100 ***13,350**	5350 **12,050**	5580 **18'0"**

* **ISO 10567**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Bucket Specifications and Compatibility

								Counterweight	4250 kg (9,370 lb)
		Width		Capacity		Weight		Fill	Reach Boom
	Linkage	mm	in	m^3	yd^3	kg	lb	%	R2.9 m (9'6")
Pin-On (No Quick Coupler)									
General Duty	B	1250	49	1.20	1.57	879	1,938	100	◉
	B	1200	48	1.19	1.56	890	1,962	100	◉
								Maximum load with pin-on (payload + bucket)	kg	3085
									lb	6,801

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/m^3 (3,000 lb/yd^3)

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		
Counterweight		**4250 kg (9,370 lb)**
Boom Type		**Reach Boom**
Stick Length		**R2.9 m (9'6")**
Hydraulic Hammers	H120 GC	✓
	H120 GC S	✓
	H120 S	✓
	H130 S	✓†
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
BOOMS, STICKS AND LINKAGES		
5.7 m (18'8") Reach boom	✓	
2.9 m (9'6") Reach stick	✓	
Bucket linkage with lifting eye, B1 type	✓	
CAB		
Sound suppressed cab with viscous mounts	✓	
High-resolution 203 mm (8") LCD touchscreen monitor	✓	
Mechanical-suspension seat with head rest and arm rest	✓	
51 mm (2") orange seat belt	✓	
Auto bi-level air conditioner	✓	
Keyless push-to-start engine control	✓	
Fixed left-side console	✓	
1-button joysticks	✓	
3-button joysticks		✓
AM/FM Bluetooth® radio with USB/Aux ports	✓	
Speakers (mounted on roof)	✓	
24V DC outlet	✓	
Storage compartments	✓	
Cup holder	✓	
70/30 tempered glass windshield	✓	
Rear window emergency exit	✓	
Radial wiper with washer	✓	
Openable steel hatch	✓	
LED dome light	✓	
WASHABLE FLOOR MAT		
Cat Product Link™	✓	
ELECTRICAL SYSTEM		
Two 950 CCA maintenance-free batteries	✓	
Electrical disconnect switch	✓	
LED chassis and cab lights	✓	
LED right-side boom light		✓
LED left-side boom light	✓	

	Standard	Optional
ENGINE		
Cat® C4.4 double turbo diesel engine	✓	
Two selectable modes: Power, Smart	✓	
Up to 4500 m (14,764 ft) altitude capability with derate from 3000 m (9,842 ft)	✓	
52° C (125° F) high-ambient cooling capacity	✓	
–25° C (–13° F) cold start capability	✓	
Electric fuel priming pump	✓	
Direct drive fan	✓	
Two-stage fuel filtration system with water separator and indicator	✓	
Sealed double element air filter with pre-cleaner	✓	
HYDRAULIC SYSTEM		
Electronic main control valve, hammer ready	✓	
Back-to-back electronic pump	✓	
Boom and stick regeneration circuits	✓	
Automatic hydraulic oil warm up	✓	
Automatic two-speed travel	✓	
Hammer lines		✓
High performance hydraulic return filter	✓	
SAFETY AND SECURITY		
Anti-skid plating with countersunk bolts	✓	
FOGS with matching lights		✓
Handrail and handhold (ISO compliant)	✓	
Lockable external tool/storage box	✓	
Ground-level secondary engine shutoff switch	✓	
Signaling/warning horn	✓	
Swing alarm		✓
Hydraulic lockout lever	✓	
Right-side-view mirror	✓	
Right-hand edge mirror on cab		✓
Rearview camera		✓
Travel alarm		✓

(continued on next page)

Standard and Optional Equipment *(continued)*

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

	Standard	Optional
SERVICE AND MAINTENANCE		
Grouped engine oil and fuel filters	✓	
Scheduled Oil Sampling (S·O·S℠) ports	✓	
Radiator screen		✓

	Standard	Optional
UNDERCARRIAGE AND STRUCTURES		
600 mm (24") triple grouser track shoes		✓
790 mm (31") triple grouser track shoes		✓
Grease lubricated track link	✓	
Center track guiding guard	✓	
Bottom guards	✓	
Travel motor guards	✓	
FOGS guard		✓
4250 kg (9,370 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

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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AEXQ3222-03 (02-2023)
Replaces AEXQ3222-02
Build Number: 05D
(Indonesia, SE Asia, Sri Lanka)

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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