



320 GC

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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320 GC Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C4.4	
Net Power		
ISO 9249	107 kW	143 hp
ISO 9249 (DIN)	145 hp (metric)	
Engine Power		
ISO 14396	108 kW	145 hp
ISO 14396 (DIN)	147 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⁾	

- Meets Brazil MAR-1 and China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Recommended for use up to 4500 m (14,760 ft) altitude with engine power derate above 3000 m (9,840 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 (hydrogenated 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	11.3 rpm	
Maximum Swing Torque	74.4 kN·m	54,900 lb·ft

Weights

Operating Weight	21 100 kg	46,500 lb
<ul style="list-style-type: none"> • Reach boom, R2.9 (9'6") stick, GD 1.0 m³ (1.31 yd³) bucket, 600 mm (24") triple grouser shoes, 4.2 mt (9,260 lb) counterweight. 		

Track

Standard Track Shoes Width	600 mm	24 in
Number of Shoes (each side)	49	
Number of Track Rollers (each side)	8	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.7 km/h	3.5 mph
Maximum Drawbar Pull	206 kN	46,311 lbf

Hydraulic System

Main System – Maximum Flow – Implement	429 L/min (215 × 2 pumps)	113 gal/min (57 × 2 pumps)
Maximum Pressure – Equipment	35 000 kPa	5,075 psi
Maximum Pressure – Travel	34 300 kPa	4,974 psi
Maximum Pressure – Swing	25 000 kPa	3,625 psi
Boom Cylinder – Bore	120 mm	5 in
Boom Cylinder – Stroke	1260 mm	50 in
Stick Cylinder – Bore	135 mm	5 in
Stick Cylinder – Stroke	1504 mm	59 in
Bucket Cylinder – Bore	115 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

Service Refill Capacities

Fuel Tank Capacity	345 L	86.6 gal
Cooling System	25 L	6.6 gal
Engine Oil	15 L	4.0 gal
Swing Drive	12 L	3.2 gal
Final Drive (each)	4 L	1.1 gal
Hydraulic System (including tank)	234 L	61.8 gal
Hydraulic Tank	115 L	30.4 gal

Standards

Brakes	ISO 10265:2008
Cab/ROPS	ISO 12117-2:2008
Cab/FOGS (optional)	ISO 10262:1998 Level II

Sound Performance

ISO 6395:2008 (external)	99 dB(A)
ISO 6396:2008 (inside cab)	70 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.

320 GC Hydraulic Excavator Specifications

Operating Weight and Ground Pressure

Base Machine Configurations	600 mm (24") Triple Grouser Shoes			
	Weight		Ground Pressure	
Base Frame with Track Rollers and Carrier Rollers				
4.2 mt (9,260 lb) Counterweight + Long Undercarriage Base Machine				
Reach Boom + R2.9 (9'6") Stick + 1.0 m³ (1.31 yd³) GD Bucket	21 100 kg	46,500 lb	43.9 kPa	6.4 psi

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

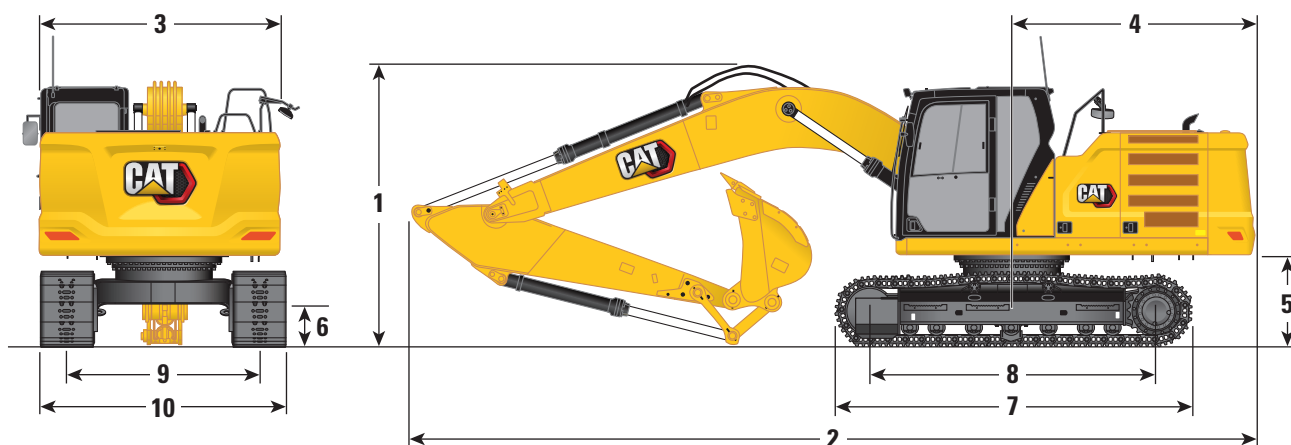
Major Component Weights

	kg	lb
Base Machine (with 4.2 mt [9,260 lb] counterweight, semi-HD swing frame, standard base frame with HD track rollers and standard carrier rollers for long undercarriage, without boom cylinders – does not include 90% fuel and 75 kg [165 lb] operator)	14 400	31,700
Track Shoes:		
600 mm (24") Width, 8.5 mm (0.33") Thick Triple Grouser Track Shoes	2600	5,700
Two Boom Cylinders	340	700
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	700
Counterweight:		
4.2 mt (9,260 lb) Counterweight	4200	9,300
Swing Frame:		
Semi-HD Swing Frame	1940	4,210
Undercarriage:		
Standard Base Frame with HD Track Rollers and Standard Carrier Rollers	4270	9,400
Boom (including lines, pins, stick cylinder):		
Reach Boom (5.7 m/18'8")	1690	3,700
Stick (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick (R2.9B1/9'6")	980	2,200
Bucket (without linkage):		
1.0 m ³ (1.31 yd ³) GD	730	1,600

320 GC 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 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	2950 mm	9'8"
With Boom/Stick/Bucket Installed	3160 mm	10'4"
With Boom/Stick Installed	2910 mm	9'7"
With Boom Installed	2480 mm	8'2"

2 Machine Length:

With Boom/Stick/Bucket Installed	9530 mm	31'3"
With Boom/Stick Installed	9500 mm	31'2"
With Boom Installed	8450 mm	27'9"

3 Upperframe Width

2780 mm 9'1"

4 Tail Swing Radius

2830 mm 9'3"

5 Counterweight Clearance

1050 mm 3'5"

6 Ground Clearance

470 mm 1'7"

7 Track Length

4450 mm 14'7"

8 Length to Center of Rollers

3650 mm 12'0"

9 Track Gauge

2380 mm 7'9"

10 Undercarriage Width:

600 mm (24") Shoes	2980 mm	9'9"
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Bucket Type

GD

Bucket Capacity

1.0 m³ 1.31 yd³

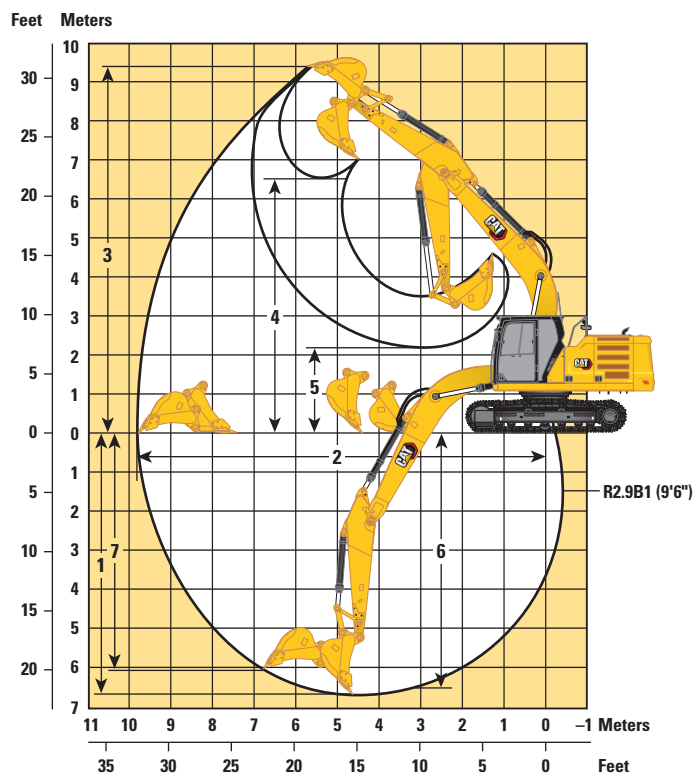
Bucket Tip Radius

1560 mm 5'1"

320 GC 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")

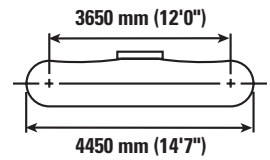
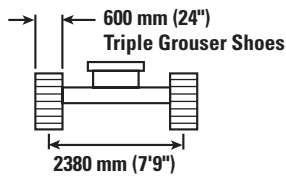
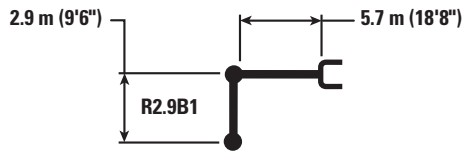
Stick Option

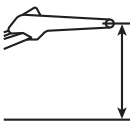













Reach Stick
R2.9B1 (9'6")

1 Maximum Digging Depth	6630 mm	21'9"
2 Maximum Reach at Ground Line	9770 mm	32'1"
3 Maximum Cutting Height	9440 mm	31'0"
4 Maximum Loading Height	6580 mm	21'7"
5 Minimum Loading Height	2260 mm	7'5"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6460 mm	21'2"
7 Maximum Vertical Wall Digging Depth	6010 mm	19'9"
Bucket Digging Force (ISO)	129 kN	29,007 lbf
Stick Digging Force (ISO)	99 kN	22,301 lbf
Bucket Type	GD	
Bucket Capacity	1.0 m ³	1.31 yd ³
Bucket Tip Radius	1560 mm	5'1"

320 GC Hydraulic Excavator Specifications

Reach Boom Lift Capacities – Counterweight: 4.2 mt (9,260 lb) – without Bucket



		1500 mm/60 in		3000 mm/120 in		4500 mm/180 in		6000 mm/240 in		7500 mm/300 in				mm in
														
7500 mm 300 in	kg lb							*4350	*4350			*3750 *8,350	*3750 *8,350	6150 240
6000 mm 240 in	kg lb							*4950 *10,900	*4950 *10,900			*3500 *7,650	*3500 *7,650	7290 290
4500 mm 180 in	kg lb							*5450 *11,850	5200 11,200	*5150 *10,950	3700 7,900	*3400 *7,500	3350 7,350	7990 320
3000 mm 120 in	kg lb					*7950 *17,150	7600 16,350	*6250 *13,600	5000 10,750	*5450 *11,900	3600 7,750	*3500 *7,650	3050 6,700	8360 330
1500 mm 60 in	kg lb					*9650 *20,800	7100 15,300	*7100 *15,400	4750 10,250	5400 11,650	3500 7,500	*3700 *8,100	2950 6,450	8450 340
0 mm 0 in	kg lb			*5800 *13,250	*5800 *13,250	*10 600 *22,900	6850 14,700	7350 15,850	4600 9,900	5350 11,450	3400 7,300	*4100 *9,000	3000 6,550	8260 330
-1500 mm -60 in	kg lb	*6150 *13,800	*6150 *13,800	*10 000 *22,700	*10 000 *22,700	*10 700 *23,150	6750 14,550	7300 15,650	4550 9,750	5300 11,400	3400 7,250	*4800 *10,600	3250 7,100	7780 310
-3000 mm -120 in	kg lb	*10 600 *23,800	*10 600 *23,800	*14 150 *30,650	13 150 28,150	*10 000 *21,600	6800 14,650	7300 15,750	4550 9,800			5950 13,200	3800 8,400	6950 280
-4500 mm -180 in	kg lb			*11 300 *24,200	*11 300 *24,200	*8150 *17,300	7000 15,100					*6150 *13,500	5200 11,700	5600 220



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 $\pm 5\%$ for all available track shoes.

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

320 GC Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,260 lb) Counterweight
		mm	in	m³	yd³	kg	lb	%	Reach Boom
									R2.9 (9'6")
Pin-On (No Quick Coupler)									
Utility Duty	B	600	24	0.39	0.51	503	1,108	100	●
	B	900	36	0.65	0.84	613	1,351	100	●
	B	1200	48	0.95	1.24	733	1,615	100	●
General Duty	B	600	24	0.46	0.60	550	1,212	100	●
	B	750	30	0.64	0.84	621	1,368	100	●
	B	1000	39	0.93	1.22	717	1,580	100	●
	B	1050	42	1.00	1.31	737	1,624	100	●
	B	1050	42	1.00	1.31	737	1,624	100	●
	B	1200	48	1.19	1.56	807	1,778	100	⊙
	B	1200	48	1.19	1.56	807	1,778	100	⊙
Heavy Duty	B	600	24	0.46	0.61	635	1,400	100	●
	B	750	30	0.64	0.84	737	1,625	100	●
	B	900	36	0.81	1.06	818	1,804	100	●
	B	1050	42	1.00	1.31	872	1,923	100	●
	B	1200	48	1.19	1.56	929	2,048	100	⊙
Clean Up	B	1800	72	1.60	2.09	979	2,157	100	○
	B	2000	78	1.76	2.31	1045	2,303	100	○
	B	2000	78	1.76	2.31	1045	2,303	100	○
Ditch Cleaning Tilt	B	1800	72	1.40	1.83	1105	2,437	100	⊖
Maximum load with pin-on (payload + bucket)								kg	3180
								lb	7,011

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:

- 2100 kg/m³ (3,500 lb/yd³)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 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.

(continued on next page)

320 GC Hydraulic Excavator Specifications

Bucket Specifications and Compatibility *(continued)*

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,260 lb) Counterweight	
		mm	in	m³	yd³	kg	lb		%	Reach Boom
										R2.9 (9'6")
With Cat Pin Grabber Coupler										
Utility Duty	B	600	24	0.39	0.51	503	1,108	100	●	
	B	900	36	0.65	0.84	613	1,351	100	●	
	B	1200	48	0.95	1.24	733	1,615	100	●	
General Duty	B	600	24	0.46	0.60	550	1,212	100	●	
	B	750	30	0.64	0.84	621	1,368	100	●	
	B	1000	39	0.93	1.22	717	1,580	100	●	
	B	1050	42	1.00	1.31	737	1,624	100	●	
	B	1050	42	1.00	1.31	737	1,624	100	●	
	B	1200	48	1.19	1.56	807	1,778	100	⊖	
	B	1400	55	1.43	1.87	874	1,926	100	○	
	B	1500	60	1.58	2.06	914	2,014	100	○	
Heavy Duty	B	600	24	0.46	0.61	635	1,400	100	●	
	B	750	30	0.64	0.84	737	1,625	100	●	
	B	900	36	0.81	1.06	818	1,804	100	●	
	B	1050	42	1.00	1.31	872	1,923	100	⊙	
	B	1200	48	1.19	1.56	929	2,048	100	⊖	
	B	1350	54	1.38	1.81	1036	2,284	100	○	
	B	1500	60	1.58	2.06	1094	2,412	100	◇	
Clean Up	B	1800	72	1.60	2.09	979	2,157	100	◇	
	B	2000	78	1.76	2.31	1045	2,303	100	◇	
	B	2000	78	1.76	2.31	1045	2,303	100	◇	
Ditch Cleaning Tilt	B	1800	72	1.40	1.83	1105	2,437	100	⊖	
Maximum load with coupler (payload + bucket)								kg	2760	
								lb	6,086	

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:

- 2100 kg/m³ (3,500 lb/yd³)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)
- ◇ 900 kg/m³ (1,500 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.

320 GC Hydraulic Excavator Specifications

Attachments Offering Guide

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

☒ Match
 ☐ * Working range front only
 ☐ † Allowed usage on machine less than 50%

PIN-ON ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Stick Length		R2.9 (9'6")
Hydraulic Hammers	H115 S	✓
	H120 GC	✓
	H120 GC S	✓
	H120 S	✓†
	H130 S	✓†
Demolition and Sorting Grapples	G318	✓
Mobile Scrap and Demolition Shears	S3025 Flat Top	✓
Compactors (Vibratory Plate)	CVP110	✓

CAT PIN GRABBER COUPLER ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Stick Length		R2.9 (9'6")
Hydraulic Hammers	H115 S	✓
	H120 GC	✓†
	H120 GC S	✓†
	H120 S	✓†
	H130 GC	✓†*
	H130 GC S	✓†
	H130 S	✓†
Demolition and Sorting Grapples	G318	✓
Compactors (Vibratory Plate)	CVP110	✓

BOOM-MOUNT ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Mobile Scrap and Demolition Shears	S3035 Flat Top	✓

320 GC Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
BOOM, STICKS AND LINKAGES			CAT TECHNOLOGY		
5.7 m (18'8") Reach boom	✓		Cat Product Link™	✓	
2.9 m (9'6") Reach stick	✓		Remote Flash	✓	
Bucket linkage, B1-family with lifting eye	✓		Remote Troubleshoot	✓	
CAB			Auto hammer stop	✓	
ROPS	✓		ELECTRICAL SYSTEM		
High-resolution 203 mm (8") LCD touchscreen monitor	✓		1,000 CCA maintenance-free batteries (×2)	✓	
Auto bi-level air conditioner	✓		Centralized electrical disconnect switch	✓	
Keyless push-to-start engine control	✓		Programmable time-delay LED working lights	✓	
Height-adjustable console, three steps with tool	✓		LED chassis light and LH boom light – 850 lumens	✓	
Fixed left-side console	✓		LED chassis light, LH and RH boom lights, cab lights – 850 lumens		✓
Mechanical-suspension seat	✓		ENGINE		
51 mm (2") seat belt	✓		Cat C4.4 single turbo diesel engine	✓	
Console mounted Bluetooth® radio with USB ports	✓		Two selectable power modes	✓	
24V DC outlet	✓		Automatic engine speed control	✓	
Document storage	✓		Auto engine idle shutdown	✓	
Overhead storage and rear storage with nets	✓		Work up to 3000 m (9,840 ft) above sea level without engine power de-rating	✓	
Beverage holder	✓		52° C (125° F) high-ambient cooling capacity	✓	
Cup holder	✓		Cold starting capability for –32° C (–25° F)	✓	
Openable two-piece front window	✓		Double element air filter with integrated pre-cleaner	✓	
Rear window emergency exit	✓		Electric fuel priming pump	✓	
Radial wiper with washer	✓		Electric cooling fans with auto-reverse function	✓	
Openable steel hatch	✓				
LED dome light	✓				
Roller front sunscreen	✓				
Roller rear sunscreen		✓			
Washable floor mat	✓				
Beacon ready	✓				

(continued on next page)

320 GC 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
HYDRAULIC SYSTEM			SERVICE AND MAINTENANCE		
Boom and stick regeneration circuits	✓		Scheduled Oil Sampling (S·O·S SM) sampling ports	✓	
Boom and stick lowering check valves	✓		Grouped location for engine oil and fuel filters	✓	
Electronic main control valve	✓		Ground-level second dipstick for engine oil	✓	
Auto warm up	✓		Side entry to service platform	✓	
Auto two-speed travel	✓		Radiator screen		✓
Boom and stick drift reduction valve	✓		Integrated Vehicle Health Management system		✓
Element type main hydraulic filter	✓		UNDERCARRIAGE AND STRUCTURES		
Slider joysticks	✓		600 mm (24") triple grouser track shoes	✓	
Tandem type electronic main pump	✓		Tie-down points on base frame	✓	
Fine swing control	✓		Segmented track guiding guards	✓	
Tool Control (two pump, one/two way high-pressure flow)	✓		Bottom guards	✓	
Hammer return circuit		✓	Swivel guard		✓
Quick coupler circuit for Cat Pin Grabber CW dedicated	✓		Travel motor guards	✓	
Operating pattern film (two way)	✓		Grease lubricated track links	✓	
SAFETY AND SECURITY			4.2 mt (9,260 lb) counterweight	✓	
Rearview and right-hand-sideview cameras	✓		Semi-HD swing frame	✓	
Cat PL161 Attachment Locator		✓	Base frame with HD track rollers and standard carrier rollers	✓	
Neutral lever (lock out) for all controls	✓				
Anti-skid plate and countersunk bolts on service platform	✓				
Ground-level accessible secondary engine shutoff switch in cab	✓				
RH handrail and handhold (ISO 2867:2011 compliant)	✓				
Travel alarm	✓				
Swing alarm		✓			
Inspection lighting		✓			

320 GC Attachments

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- Radial lower wiper for 70/30 with washer
- RH electrical pedal for tool control
- Rain protector plus cab light cover
- Polycarbonate roof hatch
- 75 mm (3") retractable seat belt

SAFETY AND SECURITY

- Bluetooth receiver kit

SERVICE AND MAINTENANCE

- Grease gun holder

ELECTRICAL

- Jump start wiring

GUARDS

- Side rubber bumper
- FOGS (not compatible with cab light cover, rain protector)
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Full protecting vandalism guard

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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AEXQ2213-08 (09-2022)
Replaces AEXQ2213-07
Build Number: 07F
(Aus-NZ)

