



# 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
Engine Power (ISO 14396)	108 kW	145 hp
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in <sup>3</sup>

- The 320 GC meets U.S. EPA Tier 3 and EU Stage IIIA equivalent emission standards.
- Recommended for use up to 4500 m (14,760 ft) altitude with engine power derate above 3000 m (9,840 ft).
- Net power is tested per ISO 9249. Standards 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.
- Rated speed at 2,000 rpm.

## Swing Mechanism

Swing Speed	11.3 rpm	
Maximum Swing Torque	74.4 kN·m	54,900 lb-ft

## Weights

Operating Weight	21 200 kg	46,700 lb
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- Reach boom, R2.9 (9'6") stick, GD 1.0 m<sup>3</sup> (1.31 yd<sup>3</sup>) 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 (each)	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
FOGS (optional)	ISO 10262-2:1998

## 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

	600 mm (24") Triple Grouser Shoes			
	Weight		Ground Pressure	
<b>4.2 mt (9,260 lb) Counterweight Base Machine</b>				
Reach Boom + R2.9 (9'6") Stick + 1.0 m <sup>3</sup> (1.31 yd <sup>3</sup> ) 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.

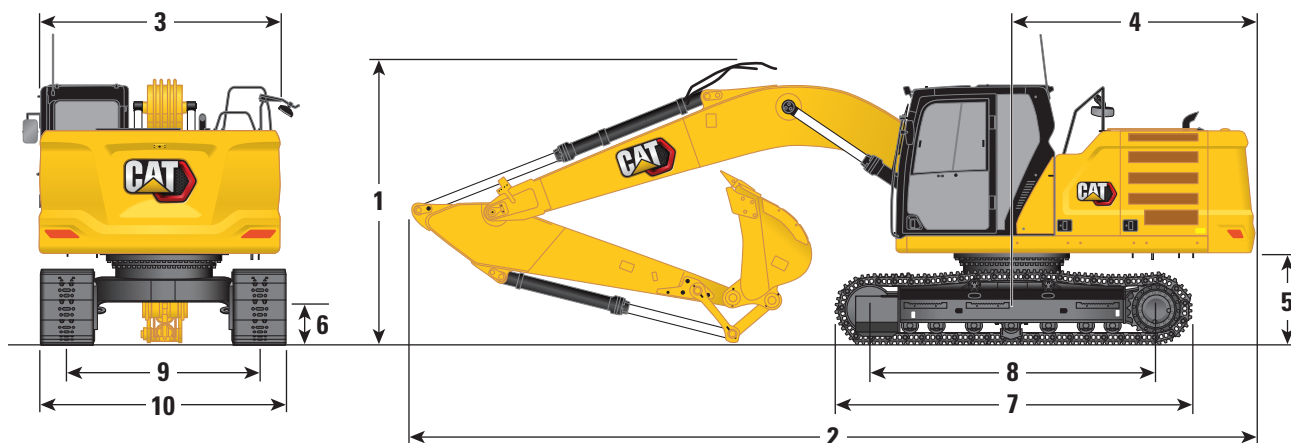
## Major Component Weights

	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)	14 500	32,000
Track Shoes:		
600 mm (24") Width, 8.5 mm (0.33") Thick Triple Grouser Track Shoes	2610	5,800
Two Boom Cylinders	340	700
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	700
Counterweight:		
4.2 mt Counterweight	4200	9,300
Swing Frame:		
Semi-HD Swing Frame	1910	4,210
Undercarriage:		
Standard Base Frame with HD Track Rollers and Standard Carrier Rollers for Long Undercarriage	4390	9,700
Booms (including lines, pins, stick cylinder):		
Reach Boom (5.7 m/18'8")	1690	3,700
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick (R2.9B1/9'6")	980	2,200
Buckets (without linkage):		
1.0 m <sup>3</sup> (1.31 yd <sup>3</sup> ) 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"
Handrails 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 without Walkways

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 m<sup>3</sup> 1.31 yd<sup>3</sup>

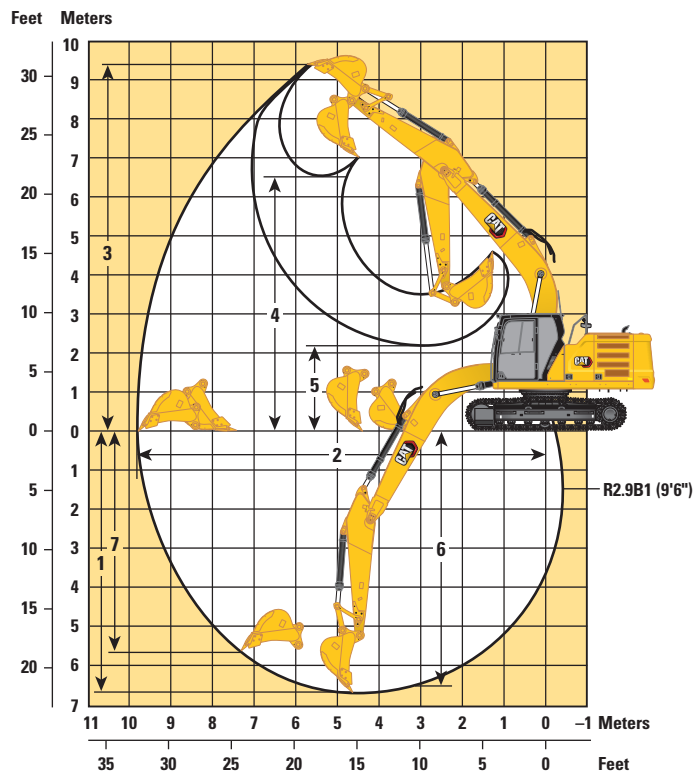
#### Bucket Tip Radius

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")

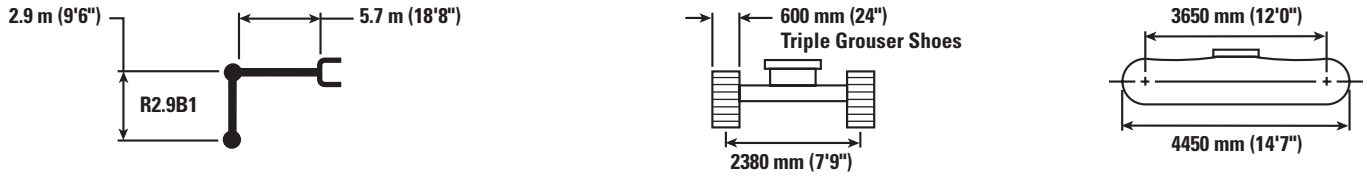
### Stick Option

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

1 Maximum Digging Depth	6710 mm	22'0"
2 Maximum Reach at Ground Line	9850 mm	32'4"
3 Maximum Cutting Height	9450 mm	31'0"
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	6540 mm	21'5"
7 Maximum Vertical Wall Digging Depth	5690 mm	18'8"
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 <sup>3</sup>	1.31 yd <sup>3</sup>
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 ±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	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		%
Pin-On (No Quick Coupler)									
General Duty									
	B	600	24	0.46	0.61	546	1,204	100	●
	B	750	30	0.64	0.84	617	1,361	100	●
	B	1000	39	0.93	1.22	710	1,566	100	●
	B	1050	42	1.00	1.31	731	1,611	100	●
	B	1200	48	1.19	1.56	799	1,761	100	●
	B	1400	55	1.43	1.87	866	1,909	100	X
	B	1500	60	1.58	2.06	906	1,997	100	X
Heavy Duty									
	B	600	24	0.46	0.61	629	1,386	100	●
	B	750	30	0.64	0.84	728	1,605	100	●
	B	900	36	0.81	1.06	806	1,775	100	●
	B	1050	42	1.00	1.31	860	1,895	100	●
	B	1200	48	1.19	1.56	916	2,018	100	⊙
	B	1350	54	1.38	1.81	1018	2,244	100	X
	B	1500	60	1.58	2.06	1079	2,378	100	X
Mud/Cleanup									
	B	1800	72	1.60	2.09	1021	2,251	100	○
	B	2000	78	1.76	2.31	1088	2,399	100	○
Ditch Cleaning – Tilt									
	B	1800	72	1.40	1.83	1148	2,531	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/m<sup>3</sup> (3,500 lb/yd<sup>3</sup>)
- ⊙ 1800 kg/m<sup>3</sup> (3,000 lb/yd<sup>3</sup>)
- ⊖ 1500 kg/m<sup>3</sup> (2,500 lb/yd<sup>3</sup>)
- 1200 kg/m<sup>3</sup> (2,000 lb/yd<sup>3</sup>)
- X Not Recommended

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	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		%	Reach Boom R2.9 (9'6")
<b>With Cat Pin Grabber Coupler</b>										
General Duty	B	600	24	0.46	0.61	546	1,204	100	●	
	B	750	30	0.64	0.84	617	1,361	100	●	
	B	1000	39	0.93	1.22	710	1,566	100	●	
	B	1050	42	1.00	1.31	731	1,611	100	●	
	B	1200	48	1.19	1.56	799	1,761	100	⊖	
	B	1400	55	1.43	1.87	866	1,909	100	○	
Heavy Duty	B	1500	60	1.58	2.06	906	1,997	100	○	
	B	600	24	0.46	0.61	629	1,386	100	●	
	B	750	30	0.64	0.84	728	1,605	100	●	
	B	900	36	0.81	1.06	806	1,775	100	●	
	B	1050	42	1.00	1.31	860	1,895	100	⊙	
	B	1200	48	1.19	1.56	916	2,018	100	⊖	
	B	1350	54	1.38	1.81	1018	2,244	100	○	
Mud/Cleanup	B	1500	60	1.58	2.06	1079	2,378	100	◇	
	B	1800	72	1.60	2.09	1021	2,251	100	◇	
Ditch Cleaning – Tilt	B	2000	78	1.76	2.31	1088	2,399	100	◇	
	B	1800	72	1.40	1.83	1148	2,531	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/m<sup>3</sup> (3,500 lb/yd<sup>3</sup>)
- ⊙ 1800 kg/m<sup>3</sup> (3,000 lb/yd<sup>3</sup>)
- ⊖ 1500 kg/m<sup>3</sup> (2,500 lb/yd<sup>3</sup>)
- 1200 kg/m<sup>3</sup> (2,000 lb/yd<sup>3</sup>)
- ◇ 900 kg/m<sup>3</sup> (1,500 lb/yd<sup>3</sup>)

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%     
  No Match

### PIN-ON ATTACHMENTS

Undercarriage		L
Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Stick Length		2.92 m (9'7")
Hydraulic Hammers	H115 S	✓
	H120 GC	✓
	H120 GC S	✓
	H120 S	✓
	H130 GC	
	H130 GC S	
	H130 S	✓†
Demolition and Sorting Grapples	G318	✓
Mobile Scrap and Demolition Shears	S3025	✓

### CAT PIN GRABBER COUPLER ATTACHMENTS

Undercarriage		L
Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Stick Length		2.92 m (9'7")
Hydraulic Hammers	H120 GC	✓†
	H120 GC S	✓†
	H120 S	✓†
	H130 GC	✓†*
	H130 GC S	✓†
	H130 S	✓†
Demolition and Sorting Grapples	G318	✓
Mobile Scrap and Demolition Shears	S3025	✓*

### BOOM-MOUNT ATTACHMENTS

Undercarriage		L
Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach
Mobile Scrap and Demolition Shears	S2050	✓
	S3035	✓

# 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
<b>CAB</b>			<b>ENGINE</b>		
ROPS, standard sound suppression	✓		Two selectable power modes	✓	
High-resolution 203 mm (8") LCD touchscreen monitor	✓		Automatic engine speed control	✓	
Auto bi-level air conditioner	✓		Auto engine idle shutdown	✓	
Jog dial and shortcut keys for monitor control	✓		Work up to 3000 m (9,840 ft) above sea level without engine power de-rating	✓	
Keyless push-to-start engine control	✓		52° C (125° F) high-ambient cooling capacity	✓	
Height-adjustable console, three steps with tool	✓		Cold starting capability for -32° C (-25° F)	✓	
Fixed left-side console	✓		Double element air filter with integrated pre-cleaner	✓	
Mechanically adjustable seat suspension	✓		Electric fuel priming pump	✓	
51 mm (2") orange seat belt	✓		Electric cooling fans with auto-reverse function	✓	
Bluetooth® integrated radio (no USB, aux port or microphone)	✓		Biodiesel capability up to B20	✓	
12V DC outlets	✓		<b>HYDRAULIC SYSTEM</b>		
Document storage	✓		Boom and stick regeneration circuits	✓	
Cup and bottle holders	✓		Boom and stick lowering check valves	✓	
Openable two-piece front window	✓		Electronic main control valve	✓	
Upper radial wiper with washer	✓		Auto warm up	✓	
Openable steel hatch	✓		Auto two-speed travel	✓	
LED dome light	✓		Boom and stick drift reduction valve	✓	
Roller front sunscreen	✓		Element type main hydraulic filter	✓	
Roller rear sunscreen		✓	Slider joysticks	✓	
Rear window emergency exit	✓		Tandem type electronic main pump	✓	
Washable floor mat	✓		Fine swing control	✓	
Beacon ready	✓		Tool Control (two pump, one/two way high-pressure flow)	✓	
			Hammer return circuit		✓
			Quick coupler circuit for Cat Pin Grabber CW dedicated	✓	
			Operating pattern film (two way)	✓	

(continued on next page)

## Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
<b>UNDERCARRIAGE AND STRUCTURES</b>			<b>CAT TECHNOLOGY</b>		
600 mm (24") triple grouser track shoes	✓		Cat Product Link™	✓	
Tie-down points on base frame	✓		Auto hammer stop	✓	
Segmented track guiding guards	✓		<b>SERVICE AND MAINTENANCE</b>		
Bottom guards	✓		S·O·S <sup>SM</sup> sampling ports	✓	
Travel motor guards	✓		Grouped location for engine oil and fuel filters	✓	
Grease lubricated track links	✓		Ground-level second dipstick for engine oil	✓	
4.2 mt (9,260 lb) counterweight	✓		Side entry to service platform	✓	
Semi-HD swing frame	✓		Radiator screen		✓
Base frame with HD track rollers and standard carrier rollers	✓		<b>SAFETY AND SECURITY</b>		
<b>BOOM, STICKS AND LINKAGES</b>			Rearview and right-hand-sideview cameras	✓	
5.7 m (18'8") Reach boom	✓		Cat PL161 Attachment Locator		✓
2.9 m (9'6") Reach stick	✓		Neutral lever (lock out) for all controls	✓	
Bucket linkage, B1-family with lifting eye	✓		Anti-skid plate and countersunk bolts on service platform	✓	
<b>ELECTRICAL SYSTEM</b>			Ground-level accessible secondary engine shutoff switch in cab	✓	
1,000 CCA maintenance-free batteries (×2)	✓		RH handrail and handhold (ISO 2867:2011 compliant)	✓	
Centralized electrical disconnect switch	✓		Travel alarm	✓	
Programmable time-delay LED working lights	✓				
LED chassis light and LH boom light – 850 lumens	✓				
LED chassis light, LH and RH boom lights, cab lights – 850 lumens		✓			

# 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
- Swivel guard

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://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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AEXQ2213-05 (08-2020)  
Replaces AEXQ2213-04  
Build Number: 07D  
(ANZ)

