



320 GC

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
Operating Weights and Ground Pressures	3
Major Component Weights	3
Dimensions	4
Working Ranges	5
Bucket Specifications and Compatibility	6
Attachments Offering Guide	7
Standard and Optional Equipment	8
Dealer Installed Kit and Attachments	9



オフロード法2014年
基準適合

320 GC Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C4.4	
Net Power (ISO 9249:2007)	109 kW	146 hp
Engine Power (ISO 14396:2002)	110 kW	148 hp
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in ³

- The 320 GC meets Japan 2014 (Tier 4 Final) 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 9249:2007. 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	11.6 rpm	
Maximum Swing Torque	74.4 kN·m	54,900 lbf-ft

Weights

Operating Weight	20 600 kg	45,415 lb
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- Standard undercarriage, Reach boom, R2.9 (9'6") stick, GD 0.8 m³ (1.05 yd³) bucket, 600 mm (24") triple grouser shoes, 3.7 mt (8,200 lb) counterweight.

Track

Standard with Standard Undercarriage	600 mm	24 in
Optional for Standard Undercarriage	790 mm	31 in
Number of Shoes (each side) – Standard Undercarriage	45	
Number of Track Rollers (each side) – Standard Undercarriage	8	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.9 km/h	3.6 mph
Maximum Drawbar Pull – Standard Undercarriage	205 kN	46,131 lbf

Hydraulic System

Main System – Maximum Flow (Implement)	442 L/min (221 × 2 pumps)	116 gal/min (58 × 2 pumps)
Swing System – Maximum Flow	No swing pump	
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Equipment – Lift Mode	38 000 kPa	5,510 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
DEF Tank	39 L	10.3 gal

Standards

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

320 GC Hydraulic Excavator Specifications

Operating Weights and Ground Pressures

	600 mm (24") Triple Grouser Shoes		790 mm (31") Triple Grouser Shoes	
	Weight	Ground Pressure	Weight	Ground Pressure
3.7 mt (8,200 lb) Counterweight Base Machine				
Reach Boom + R2.9 (9'6") Stick + 0.8 m ³ (1.05 yd ³) GD Bucket	20 600 kg 45,400 lb	47.4 kPa 6.9 psi	21 100 kg 46,500 lb	36.9 kPa 5.4 psi

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

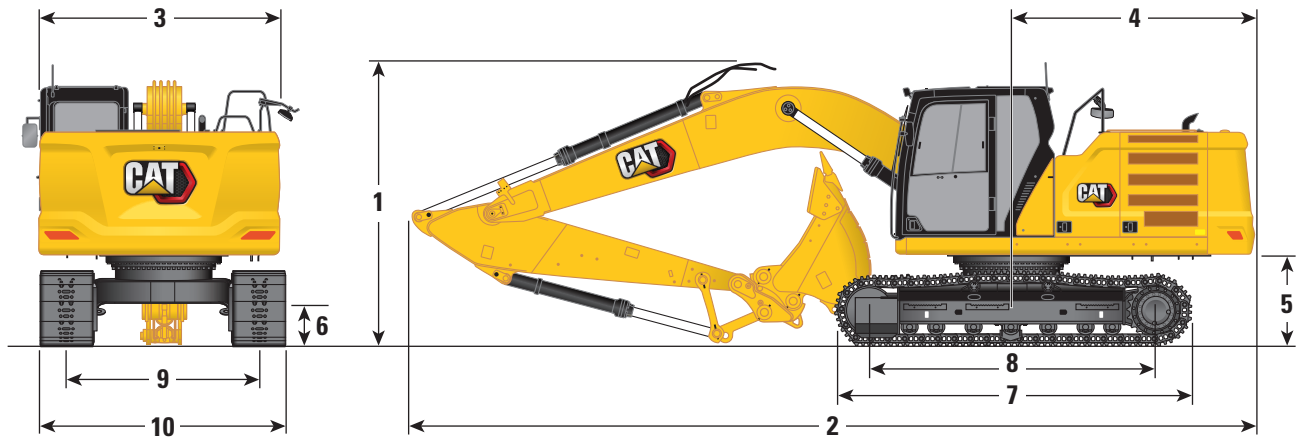
Major Component Weights

	kg	lb
Base Machine (with 3.7 mt [8,200 lb] counterweight, standard swing frame, standard base frame with standard track rollers and standard carrier rollers for standard undercarriage, with boom cylinder – does not include 90% fuel and 75 kg [165 lb] operator)	14 000	30,900
Track Shoes:		
600 mm (24 in) Width, 8.5 mm (0.33 in) Thick Triple Grouser Track Shoes for Standard Undercarriage	2580	5,700
790 mm (31 in) Width, 10 mm (0.39 in) Thick Triple Grouser Track Shoes for Standard Undercarriage with Step Extension for ISO 2867	3080	6,800
Two Boom Cylinders	340	700
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	700
Counterweight:		
3.7 mt Counterweight	3700	8,200
Swing Frame:		
Standard Swing Frame, for C4.4	1880	4,150
Undercarriage:		
Standard Base Frame with Standard Track Rollers and Standard Carrier Rollers for Standard Undercarriage	4030	8,900
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 ³ (1.31 yd ³) GD	735	1,600
1.0 m ³ (1.31 yd ³) HD	880	1,900
0.8 m ³ (1.05 yd ³) GD	663	1,500
Quick Couplers:		
Pin Grabber QC	390	850

320 GC Hydraulic Excavator Specifications

Dimensions

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

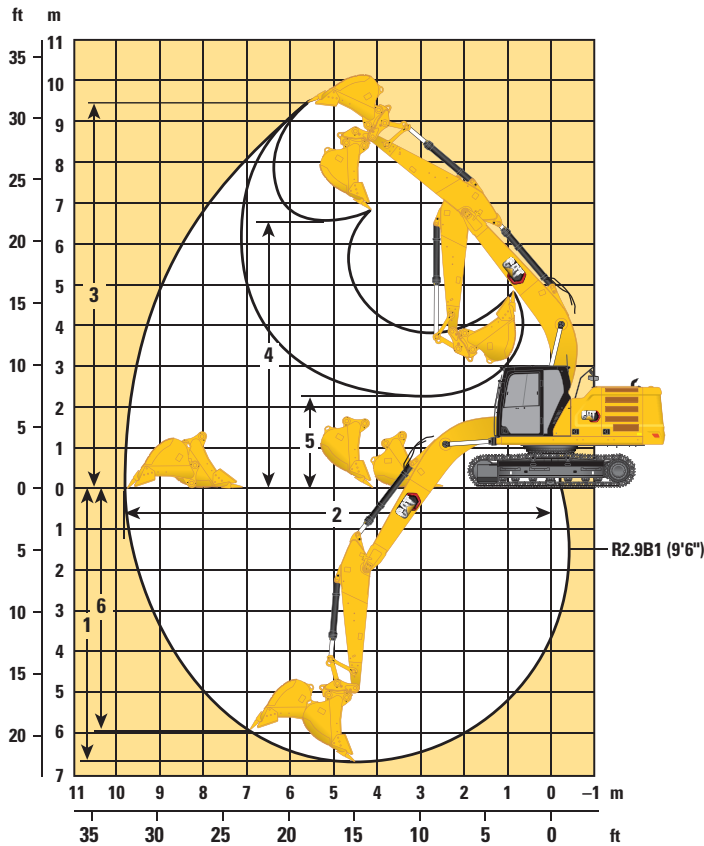


Boom Option	Reach Boom 5.7 m (18'8")	
Stick Option	Reach Stick R2.9B1 (9'6")	
1 Machine Height:		
Top of Cab Height	2960 mm	9'8"
Top of FOGS Height	3100 mm	10'2"
Handrails Height	2950 mm	9'8"
With Boom/Stick/Bucket Installed	3050 mm	10'0"
With Boom/Stick Installed	2910 mm	9'7"
With Boom Installed	2480 mm	8'1"
2 Machine Length:		
With Boom/Stick/Bucket Installed	9520 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	1'6"
7 Track Length	4070 mm	13'4"
8 Length to Center of Rollers	3270 mm	10'9"
9 Track Gauge	2200 mm	7'3"
10 Undercarriage Width:		
600 mm (24 in) Shoes	2800 mm	9'2"
790 mm (31 in) Shoes	3170 mm	10'5"
Bucket Type	GD	
Bucket Capacity	0.80 m ³	1.05 yd ³
Bucket Tip Radius	1490 mm	4'10"

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	6640 mm	21'9"
2 Maximum Reach at Ground Line	9780 mm	32'1"
3 Maximum Cutting Height	9440 mm	31'0"
4 Maximum Loading Height	6570 mm	21'7"
5 Minimum Loading Height	2250 mm	7'5"
6 Maximum Vertical Wall Digging Depth	5990 mm	19'8"
Bucket Digging Force (ISO)	135 kN	30,448 lbf
Stick Digging Force (ISO)	100 kN	22,562 lbf
Bucket Type	GD	
Bucket Capacity	0.80 m ³	1.05 yd ³
Bucket Tip Radius	1490 mm	4'10"

320 GC Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	320 GC 3.7 mt (8,200 lb) Counterweight
		mm	in	m ³	yd ³	kg	lb	%	Reach Boom
Pin-On (No Quick Coupler)									
General Duty Excavation	B	950	37	0.80	1.05	686	1,511	100	●
	B	1050	41	0.90	1.18	719	1,584	100	●
	B	1150	45	1.00	1.31	751	1,655	100	⊙
Heavy Duty Excavation	B	950	37	0.80	1.05	796	1,755	100	●
	B	1050	41	0.90	1.17	835	1,841	100	⊙
	B	1050	41	0.90	1.18	855	1,885	100	⊙
Tamping	B	2200	86	0.72	0.94	868	1,913	100	●
	B	2200	86	0.90	1.18	891	1,965	100	⊙
General Duty	312	900	36	0.53	0.69	403	888	100	
Ditch Cleaning	312	1200	48	0.57	0.74	386	851	100	
Maximum load with pin-on (payload + bucket)								kg	2565
								lb	5,655
With Cat Pin Grabber Coupler									
General Duty Excavation	B	950	37	0.80	1.05	686	1,511	100	⊙
	B	1050	41	0.90	1.18	719	1,584	100	⊖
	B	1150	45	1.00	1.31	751	1,655	100	○
Heavy Duty Excavation	B	950	37	0.80	1.05	796	1,755	100	⊖
	B	1050	41	0.90	1.17	835	1,841	100	⊖
	B	1050	41	0.90	1.18	855	1,885	100	⊖
Tamping	B	2200	86	0.72	0.94	868	1,913	100	⊙
	B	2200	86	0.90	1.18	891	1,965	100	○
Maximum load with coupler (payload + bucket)								kg	2145
								lb	4,730

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.

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		3.7 mt (8,200 lb)
Boom Type		Reach
Stick Length		2.9 m (9'6")
Hydraulic Hammers	H115 S	✓
	H120 GC Side mount	✓
	H120 S	✓
	H130 S	✓†
Pulverizer	P215	✓

CAT PIN GRABBER COUPLER ATTACHMENTS

Counterweight		3.7 mt (8,200 lb)
Boom Type		Reach
Stick Length		2.9 m (9'6")
Hydraulic Hammers	H115 S	✓†
	H120 GC Side mount	✓†
	H120 S	✓†
	H130 S	✓†*

*Working range front only

†Allowed usage on machine less than 50%.

BOOM-MOUNT ATTACHMENTS

Counterweight		3.7 mt (8,200 lb)
Boom Type		Reach
Mobile Scrap and Demolition Shears	S2050	✓

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
CAB			HYDRAULIC SYSTEM		
ROPS, standard sound suppression	✓		Boom and stick regeneration circuits	✓	
High-resolution 203 mm (8") LCD touch screen monitor	✓		Electronic main control valve	✓	
Auto bi-level air conditioner	✓		Auto warm up	✓	
Jog dial and shortcut keys for monitor control	✓		Auto two-speed travel	✓	
Keyless push-to-start engine control	✓		Boom and stick drift reduction valve	✓	
Height-adjustable console, three steps with tool	✓		Element type main hydraulic filter	✓	
Fixed left-side console	✓		Three button joysticks	✓	
Mechanically adjustable seat suspension	✓		Slider joysticks		✓
51 mm (2") orange seat belt	✓		Tandem type electronic main pump	✓	
Bluetooth® integrated radio (no USB, aux port or microphone)	✓		Bucket cylinder for B1 linkage for GC	✓	
12V DC outlets	✓		Hammer return filter circuit		✓
Document storage	✓		Combined flow/high pressure auxiliary circuit		✓
Cup and bottle holders	✓		Quick coupler circuit for Cat Pin Grabber		✓
Openable two-piece front window	✓		UNDERCARRIAGE AND STRUCTURES		
Upper radial wiper with washer	✓		600 mm (24") triple grouser track shoes		✓
Openable steel hatch	✓		790 mm (31") triple grouser track shoes		✓
LED dome light	✓		Tie-down points on base frame (ISO 15818:2017 compliant)	✓	
Roller front sunscreen	✓		Bottom guards	✓	
Roller rear sunscreen		✓	Travel motor guards	✓	
Rear window emergency exit	✓		Grease lubricated track links	✓	
Washable floor mat	✓		3700 kg (8,200 lb) counterweight	✓	
Beacon ready	✓		Shovel crane package		✓
ENGINE			<i>(continued on next page)</i>		
Two selectable power modes	✓				
Auto engine speed control	✓				
Auto engine idle shutdown	✓				
4600 m (15,092 ft) altitude capability with derate from 3000 m (9,840 ft)	✓				
52° C (125° F) high-ambient cooling capacity	✓				
Cold starting capability for -32° C (-25° F)	✓				
Double element air filter with integrated pre-cleaner	✓				
Electric fuel priming pump	✓				
Reversible electric cooling fans	✓				

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
BOOM, STICKS AND LINKAGES			SERVICE AND MAINTENANCE		
5.7 m (18'8") Reach boom	✓		S•O•S SM sampling ports	✓	
2.9 m (9'6") stick	✓		QuickEvac TM maintenance ready		✓
Bucket linkage, B1-family without lifting eye	✓		Grouped location for engine oil and fuel filters	✓	
Bucket linkage, B1-family with lifting hook for shovel crane		✓	Ground-level second dipstick for engine oil	✓	
ELECTRICAL SYSTEM			Side entry to service platform	✓	
1,000 CCA maintenance-free batteries (×2)	✓		Radiator screen		✓
Centralized electrical disconnect switch	✓		SAFETY AND SECURITY		
Programmable time-delay LED working lights	✓		Rearview and right-hand-sideview cameras	✓	
LED chassis light, LH boom light for Reach	✓		Neutral lever (lock out) for all controls	✓	
LED chassis light, LH and RH boom lights for Reach, cab lights		✓	Anti-skid plate and countersunk bolts on service platform	✓	
CAT TECHNOLOGY			Ground-level accessible secondary engine shutoff switch in cab	✓	
Cat Product Link TM	✓		RH handrail and handhold (ISO 2867:2011 compliant)	✓	
Auto hammer stop	✓		Signaling/warning horn	✓	
			Storage tray in pump compartment	✓	

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
- LH/RH electrical pedal for tool control
- Polycarbonate roof hatch

SAFETY AND SECURITY

- Bluetooth receiver
- Bluetooth key fob

SERVICE AND MAINTENANCE

- Grease gun holder

GUARDS

- Swivel guard
- FOGS (not compatible with cab light cover, rain protector)
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front

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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Based on the Labor, Safety and Health Laws in Japan, employer of small construction equipment are required to provide specific training for all operators on machines with ship weight less than 3 metric ton. For machines greater than 3 metric ton, operator needs to obtain operator license certification from a Government approved registered training school.

AEXQ2159-04 (10-2020)
Replaces AEXQ2159-03
Build Number: 07D
(Japan)

