



320 GC

Hydraulic Excavator

Technical Specifications

Engine

Engine Model	Cat® C4.4	
Engine 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 ³

- The 320 GC meets China Nonroad Stage III emission standards.
- Recommended for use up to 4500 m (14,764 ft) altitude with engine power derate above 3000 m (9,842.5 ft).
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rating at 2,000 rpm.

Swing Mechanism

Swing Speed	11.3 rpm	
Maximum Swing Torque	74 kN·m	54,400 lbf·ft

Weights

Operating Weight	19 800 kg	43,700 lb
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- Reach boom, R2.9 (9'6") stick, GD 1.0 m³ (1.31 yd³) bucket and 600 mm (24") triple grouser shoes, 3.7 mt (8,200 lb) counterweight.

Track

Standard Track Shoes Width	600 mm	24 in
Number of Shoes (each side)	45	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

Drive

Maximum 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	26 800 kPa	3,886 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

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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)	5 L	1.3 gal
Final Drive (each)	5 L	1.3 gal
Hydraulic System (including tank)	234 L	61.8 gal
Hydraulic Tank	115 L	30.4 gal

Standards

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

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.

Operating Weight and Ground Pressure

	600 mm (24") Triple Grouser Shoes			
	Weight		Ground Pressure	
3.7 mt (8,200 lb) Counterweight Base Machine				
Reach Boom + R2.9 (9'6") Stick + 1.0 m ³ (1.31 yd ³) GD Bucket	19 800 kg	43,700 lb	45.6 kPa	6.6 psi

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

320 GC Hydraulic Excavator Specifications

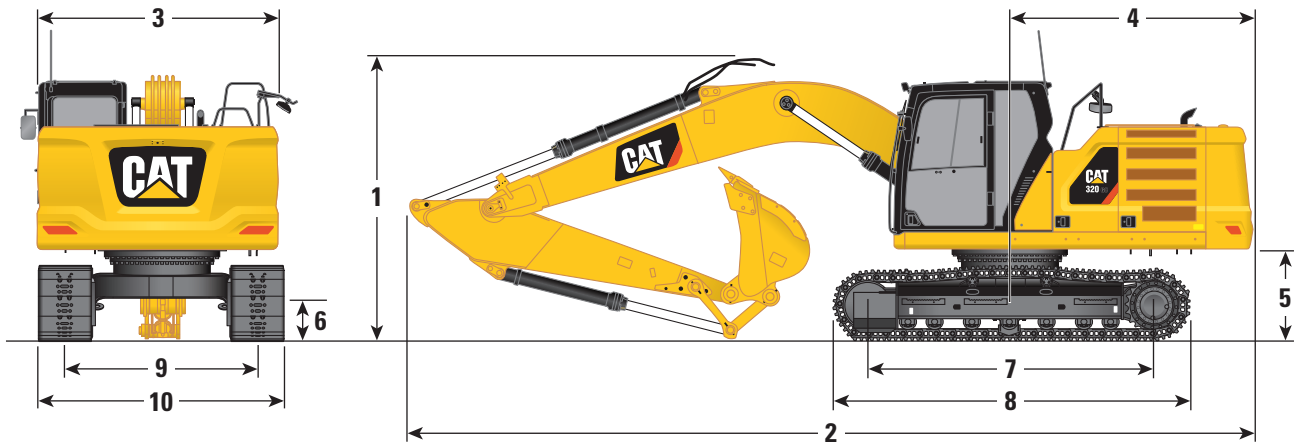
Major Component Weights

	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, without boom cylinders – does not include 90% fuel and 75 kg [165 lb] operator)	13 200	29,100
Track Shoes:		
600 mm (24") Width, 8.5 mm (0.33") Thick Triple Grouser Track Shoes for Standard Undercarriage	2580	5,700
Two Boom Cylinders	340	750
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	680
Counterweight:		
3.7 mt (8,200 lb) Counterweight	3700	8,200
Swing Frame:		
Standard Swing Frame	1880	4,150
Standard Undercarriage without Track Shoes:		
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	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

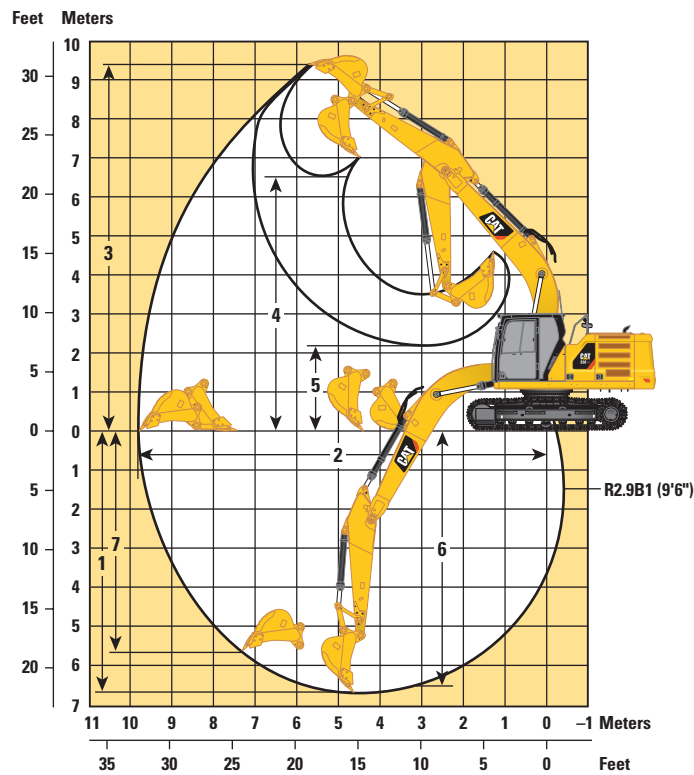
Reach Stick
R2.9B1 (9'6")

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 Length to Center of Rollers	3270 mm	10'9"
8 Track Length	4070 mm	13'4"
9 Track Gauge – Extended	2200 mm	7'3"
Track Width:		
600 mm (24") Shoes	600 mm	24"
10 Undercarriage Width (with steps/without steps):		
600 mm (24") Shoes	2800 mm	9'2"
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

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 ³	1.31 yd ³
Bucket Tip Radius	1560 mm	5'1"

320 GC Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	3.7 mt (8,200 lb) Counterweight
		mm	in	m ³	yd ³	kg	lb		%
Pin-On (No Quick Coupler)									
Utility Duty (UD) (No Adjuster)	B	1150	46	0.90	1.18	764	1,684	100	⊙
	B	1250	50	1.00	1.31	799	1,760	100	⊖
General Duty – Excavation (GDX)	B	1150	46	0.90	1.18	762	1,680	100	⊙
	B	1250	50	1.00	1.31	797	1,756	100	⊖
	B	1400	56	1.14	1.49	863	1,902	100	X
Heavy Duty (HD)	B	1050	43	1.00	1.31	879	1,937	100	⊖
	B	1200	49	1.19	1.56	942	2,076	100	○
	B	1350	54	1.40	1.81	1003	2,210	100	X
Maximum load with pin-on (payload + bucket)								kg	2425
								lb	5,346
	Linkage	Width		Capacity		Weight		Fill	3.7 mt (8,200 lb) Counterweight
		mm	in	m ³	yd ³	kg	lb		%
With Cat Pin Grabber Coupler									
Utility Duty (UD)	B	1150	46	0.90	1.18	764	1,684	100	○
	B	1250	50	1.00	1.31	799	1,760	100	○
General Duty – Excavation (GDX)	B	1150	46	0.90	1.18	762	1,680	100	○
	B	1250	50	1.00	1.31	797	1,756	100	○
	B	1400	56	1.14	1.49	863	1,902	100	◇
Heavy Duty (HD)	B	1050	43	1.00	1.31	879	1,937	100	◇
	B	1200	49	1.19	1.56	942	2,076	100	◇
	B	1350	54	1.40	1.81	1003	2,210	100	X
Maximum load with coupler (payload + bucket)								kg	2003
								lb	4,417

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

320 GC Hydraulic Excavator Specifications

Attachments Offering Guide – China

PIN-ON ATTACHMENTS

Counterweight		3.7 mt (8,200 lb)
Boom Type		Reach Boom
Stick Length		2.9 m (9'6")
Hydraulic Hammers	H115Es	✓
	H120Es	✓
	H130Es	✓†
	B20	✓
	B20 Side-mount	✓
Compactors (Vibratory Plate)	CVP110	✓
Cat Pin Grabber Couplers		✓

†Allowed usage on machine less than 50%.

Attachments Offering Guide – Hong Kong, Taiwan

PIN-ON ATTACHMENTS

Counterweight		3.7 mt (8,200 lb)
Boom Type		Reach Boom
Stick Length		2.9 m (9'6")
Hydraulic Hammers	B20	✓

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
ENGINE			UNDERCARRIAGE AND STRUCTURES		
Cat C4.4 single turbo China Nonroad Stage III	✓		Tie-down points on base frame	✓	
Two selectable power modes	✓		Standard bottom guards	✓	
One-touch low idle with automatic engine speed control	✓		Standard travel motor guards	✓	
Automatic engine idle shutdown	✓		Grease lubricated track links	✓	
Work up to 3000 m (9,842.5 ft) above sea level without engine power de-rating	✓		Center track guiding guard	✓	
52° C (125° F) high-ambient cooling capacity	✓		3.7 mt (8,200 lb) counterweight	✓	
Cold starting capability for -32° C (-25° F)	✓		Standard swing frame	✓	
Double element air filter with integrated precleaner	✓		Standard swing bearing	✓	
Electric fuel priming pump	✓		Base frame with standard track rollers and standard carrier rollers	✓	
On-demand electric cooling fans with auto-reverse function	✓		Final drive with standard travel motor	✓	
Biodiesel capability up to B20	✓		BOOM, STICKS AND LINKAGES		
HYDRAULIC SYSTEM			600 mm (24") triple grouser track shoes	✓	
Boom and stick regeneration circuits	✓		5.7 m (18'8") Reach boom	✓	
Electronic main control valve	✓		2.9 m (9'6") Reach stick	✓	
Auto hydraulic oil warm up	✓		Bucket linkage, B1-family with or without lifting eye	✓	
Automatic two-speed travel	✓		ELECTRICAL SYSTEM		
Boom and stick drift reduction valve	✓		Machine electronic control module (×2)	✓	
Element type main hydraulic filter	✓		1,000 CCA maintenance-free batteries (×2)	✓	
Three button joysticks	✓		Centralized electrical disconnect switch	✓	
Slider joysticks		✓*	Programmable time-delay LED working lights	✓	
Tandem type electronic main pump	✓		LED chassis light and LH boom light – 850 lumens	✓	
Hammer return filter circuit		✓*	RH boom light, cab lights – 850 lumens		✓
Tool Control (two pump, one/two way high-pressure flow)		✓*	CAT CONNECT TECHNOLOGY		
Basic Tool Control (one pump, one way high-pressure flow)		✓	Cat Product Link™	✓	
Quick coupler circuit for Cat Pin Grabber		✓*			
Operating pattern film (four way)	✓*				

(continued on next page)

*Hong Kong and Taiwan only

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
SERVICE AND MAINTENANCE			SAFETY AND SECURITY		
Sampling ports for Scheduled Oil Sampling (S·O·S SM)	✓		Rearview camera and side RH mirror	✓	
Grouped location for engine oil and fuel filters	✓		Right-side-view camera		✓
Ground level second dipstick for engine oil	✓		Neutral lever (lock out) for all controls	✓	
Side entry to service platform	✓		Anti-skid plate and countersunk bolts on service platform	✓	
			Ground-level accessible secondary engine shutoff switch in cab	✓	
			RH handrail and hand hold (ISO 2867:2011 compliant)	✓	
			Travel alarm	✓*	

*Hong Kong and Taiwan only

320 GC Attachments

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- RH electrical pedal (Hong Kong, Taiwan)
- Polycarbonate roof hatch

GUARDS

- 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

HYDRAULIC

- Tool Control (two pump, one/two way high-pressure flow)
- Basic Tool Control (one pump, one way high-pressure flow)
- Quick coupler circuit

320 GC Cab Options

Cab Options

	Comfort
ROPS, standard sound suppression	●
High-resolution 203 mm (8") LCD touchscreen monitor	●
Automatic bi-level air conditioner	●
Jog dial and shortcut keys for monitor control	●
Keyless push-to-start engine control	●
Height-adjustable console, three steps with tool	●
Mechanically adjustable seat suspension	●
51 mm (2") seat belt	●
Fixed left-side console	●
Bluetooth® integrated radio with USB ports	●
2×12V DC outlets	●
Document storage	●
Cup and bottle holders	●
Two-piece front window, openable	●
Upper radial wiper with 70/30 with washer	●
Openable steel hatch	●
LED dome and lower interior lights	●
Roller front sunscreen	●
Roller rear sunscreen	○
Beacon ready	●
Washable floor mat	●
Straight travel pedal	●

● Standard

○ Optional

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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AEXQ2198-03 (01-2019)
Replaces AEXQ2198-02
Build Number: 07B
(China/Hong Kong/Taiwan)

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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