



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 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 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	54,440 lbf·ft

Weights

Operating Weight	21 200 kg	46,700 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, 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

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

320 GC Hydraulic Excavator Specifications

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	
4.2 mt (9,260 lb) Counterweight Base Machine				
Reach Boom + R2.9 (9'6") Stick + 1.0 m ³ (1.31 yd ³) GD Bucket	21 200 kg	46,700 lb	44.1 kPa	6.4 psi

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

320 GC Hydraulic Excavator Specifications

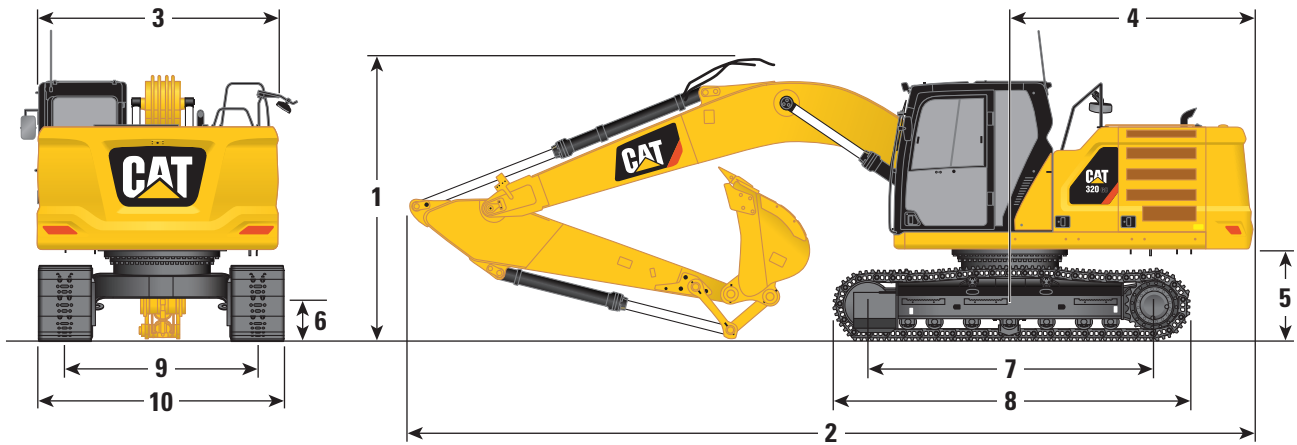
Major Component Weights

	kg	lb
Base Machine (with 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 (9,260 lb) Counterweight	4200	9,300
Swing Frame:		
Semi-HD Swing Frame	1910	4,210
Long Undercarriage without Track Shoes:		
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 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

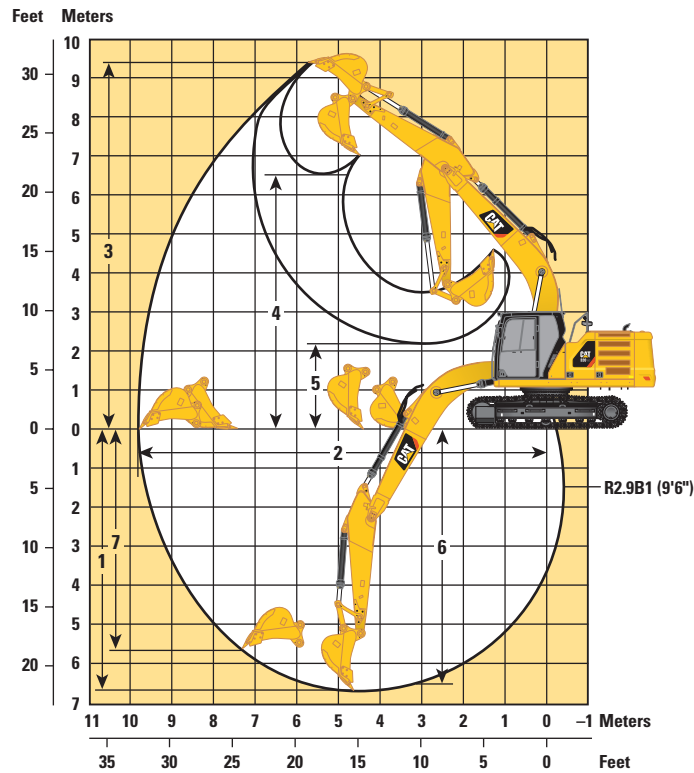
Reach Stick
R2.9B1 (9'6")

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	3650 mm	12'0"
8 Track Length	4450 mm	14'7"
9 Track Gauge	2380 mm	7'9"
Track Width:		
600 mm (24") Shoes	600 mm	24"
10 Undercarriage Width (with steps/without steps):		
600 mm (24") Shoes	2980 mm	9'9"
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

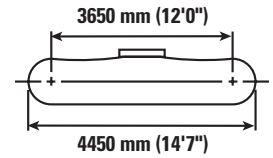
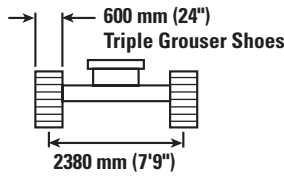
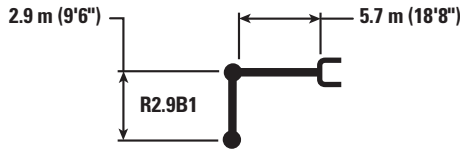
All dimensions are approximate and may vary depending on bucket selection.



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"

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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 ³	yd ³	kg	lb		%
Pin-On (No Quick Coupler)									
General Duty (GD) (NO Adjuster)	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
Heavy Duty (HD) (NO Adjuster)	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
Severe Duty (SD) (NO Adjuster)	B	900	36	0.81	1.06	868	1,913	90	●
	B	1800	72	1.60	2.09	1021	2,251	100	○
Mud/Cleanup (M/CU)	B	2000	78	1.76	2.31	1088	2,399	100	○
	B	1800	72	1.40	1.83	1148	2,531	100	⊖
Ditch Cleaning – Tilt (DCT)	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/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)
- 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 ³	yd ³	kg	lb		%
With Cat Pin Grabber Coupler									
General Duty (GD)	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 (HD)	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	⊖
Severe Duty (SD)	B	1350	54	1.38	1.81	1018	2,244	100	○
	B	1500	60	1.58	2.06	1079	2,378	100	◇
Mud/Cleanup (M/CU)	B	900	36	0.81	1.06	868	1,913	90	●
	B	1800	72	1.60	2.09	1021	2,251	100	◇
Ditch Cleaning – Tilt (DCT)	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/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)

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320 GC Hydraulic Excavator Specifications

Attachments Offering Guide

PIN-ON ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach Boom
Stick Length		2.9 m (9'6")
Hydraulic Hammers	H115Es	✓
	H120Es	✓
	H130Es	✓†
	B20	✓
Compactors (Vibratory Plate)	CVP110	✓
Mobile Scrap and Demolition Shears	S3025	✓
Cat Pin Grabber Couplers		✓

CAT PIN GRABBER COUPLER ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)
Boom Type		Reach Boom
Stick Length		2.9 m (9'6")
Hydraulic Hammers	H115Es	✓†
	H120Es	✓†
	H130Es	✓†
	B20	✓†
Compactors (Vibratory Plate)	CVP110	
Mobile Scrap and Demolition Shears	S3025	✓*

BOOM-MOUNT ATTACHMENTS

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

†Allowed usage on machine less than 50%.

*Working range front only.

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	✓		Tie-down points on base frame	✓	
Two selectable power modes	✓		Track guiding guard, segmented two piece	✓	
One-touch low idle with automatic engine speed control	✓		Standard bottom guards	✓	
Automatic engine idle shutdown	✓		Standard travel motor guards	✓	
Work up to 3000 m (9,840 ft) above sea level without engine power de-rating	✓		Grease lubricated track links	✓	
52° C (125° F) high-ambient cooling capacity	✓		4.2 mt (9,260 lb) counterweight	✓	
Cold starting capability for -32° C (-25° F)	✓		Semi-HD swing frame	✓	
Double element air filter with integrated precleaner	✓		Standard swing bearing	✓	
Electric fuel priming pump	✓		Base frame with HD 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	✓	
Boom/stick lowering check valves	✓		2.9 m (9'6") Reach stick	✓	
Electronic main control valve	✓		Bucket linkage, B1-family with lifting eye	✓	
Auto hydraulic oil warm up	✓		ELECTRICAL SYSTEM		
Automatic two-speed travel	✓		Machine electronic control module (×2)	✓	
Boom and stick drift reduction valve	✓		1,000 CCA maintenance-free batteries (×2)	✓	
Element type main hydraulic filter	✓		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	✓	
Fine swing control	✓		LED chassis light, LH and RH boom lights, cab lights – 850 lumens		✓
Tool Control (two pump, one/two way high-pressure flow)	✓		CAT CONNECT TECHNOLOGY		
Hammer return circuit		✓	Cat Product Link™	✓	
Quick coupler circuit for Cat Pin Grabber CW dedicated	✓				
Operating pattern film (two way)	✓				

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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 and right-side-view cameras	✓	
Grouped location for engine oil and fuel filters	✓		Cat asset tracker		✓
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	✓	
Radiator screen		✓	Ground-level accessible secondary engine shutoff switch in cab	✓	
			RH handrail and hand hold (ISO 2867:2011 compliant)	✓	
			Travel alarm	✓	

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
- Seat belt, retractable (75 mm/3" width)

SAFETY AND SECURITY

- Bluetooth® receiver kit

ELECTRICAL

- Jump start wiring

HYDRAULIC

- Tool Control (two pumps, one/two way high-pressure flow)
- Common Quick Coupler Circuit for Cat Pin Grabber and CW Dedicated

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
- Standard swivel guard

320 GC Cab Options

Cab Options

	Comfort
ROPS, standard sound suppression	●
High-resolution 203 mm (8") LCD touch screen 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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AEXQ2213-03 (01-2019)
Replaces AEXQ2213-02
Build Number: 07B
(ANZ)

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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