320
Hydraulic Excavator

Technical Specifications

Engine

Engine Model	Cat® C4.4 ACERT™	
Net Power (ISO 9249)	121 kW	162 hp
Net Power (SAE J1349)	121 kW	162 hp
Gross Power (ISO 14396/SAE J1995)	122 kW	164 hp
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in³

- The 320 meets U.S. EPA Tier 4 Final 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 1,800 rpm.

Engine rpm

Operation	1,650 rpm
Travel	1,800 rpm

Swing Mechanism

Swing Speed	11.30 rpm	
Maximum Swing Torque	74 kN·m	54,440 lbf-ft

Weights

Operating Weight	22 500 kg	49,600 lb

- Reach boom, R2.9 (9'6") stick, HD 1.19 m³ (1.56 yd³) bucket and 790 mm (31 in) triple grouser shoes.

Track

Standard Track Shoe Width	790 mm	31 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 – Long Undercarriage	205 kN	45,996 lbf

Hydraulic System

Main System – Maximum Flow (Implement)	429 L/min (214.5 × 2 pumps)	113 gal/min (56.5 × 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	26 800 kPa	3,886 psi
Boom Cylinder – Bore	120 mm	5 in
Boom Cylinder – Stroke	1260 mm	50 in
Stick Cylinder – Bore	140 mm	6 in
Stick Cylinder – Stroke	1504 mm	59 in
Bucket Cylinder – Bore	120 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

320 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
DEF Tank	39 L	10.3 gal

Standards

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

Sound Performance

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

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- 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

	790 mm (31 in) Triple Grouser Shoes			
	Weight		Ground Pressure	
4.2 mt (9,300 lb) Counterweight + Base Machine				
Reach Boom + R2.9 (9'6") Stick + 1.14 m³ (1.49 yd³) GD Bucket	22 400 kg	49,400 lb	35.4 kPa	5.1 psi

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

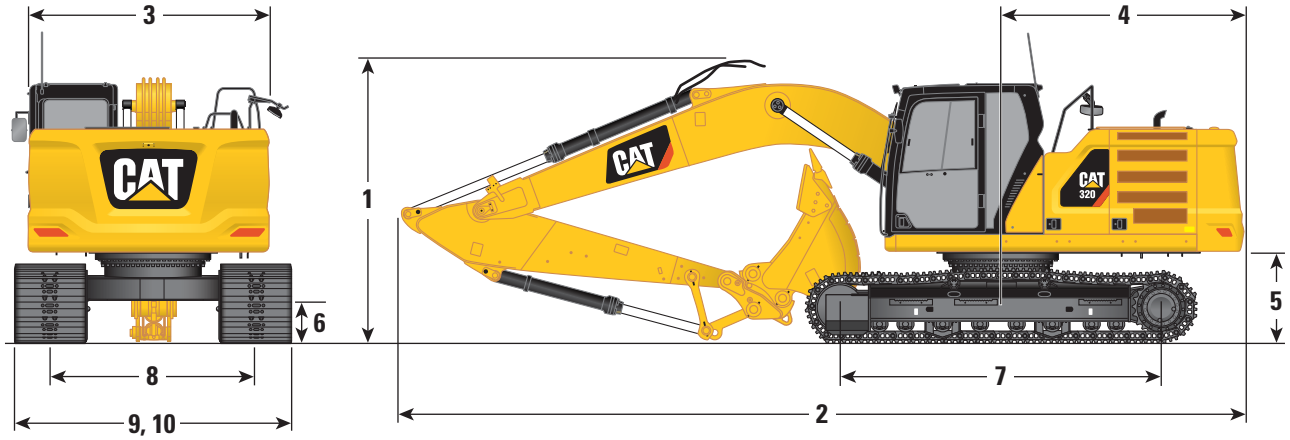
Major Component Weights

	kg	lb
Base Machine (with 4.2 mt [9,300 lb] counterweight, semi-HD swing frame, standard base frame with HD track rollers and standard carrier rollers for long undercarriage, with boom cylinder – does not include 90% fuel and 75 kg [165 lb] operator)	14 800	32,600
Track Shoes:		
790 mm (31 in) Width, 10 mm (0.39 in) Thick Triple Grouser Track Shoes for Long Undercarriage with Step Extension for ISO 2867	3370	7,400
Two Boom Cylinders	340	750
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	680
Counterweights:		
4.2 mt (9,300 lb) Counterweight	4200	9,300
4.7 mt (10,400 lb) Counterweight (only for Super Long Reach)	4700	10,400
Swing Frame:		
Semi-HD Swing Frame, for C4.4 ACERT	1910	4,210
Standard and Long 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")	1710	3,800
Super Long Reach Boom (8.85 m/29'0")	2170	4,800
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick (R2.9B1/9'6")	1300	2,900
Super Long Reach Stick (6.28A/20'7")	1340	3,000
Buckets (without linkage):		
1.19 m^3 (1.56 yd^3) HD	880	1,940
1.0 m^3 (1.31 yd^3) HD	850	1,870
0.57 m^3 (0.75 yd^3) Ditch Cleaning	390	850
Quick Couplers:		
Pin Grabber QC	390	850

320 Hydraulic Excavator Specifications

Dimensions

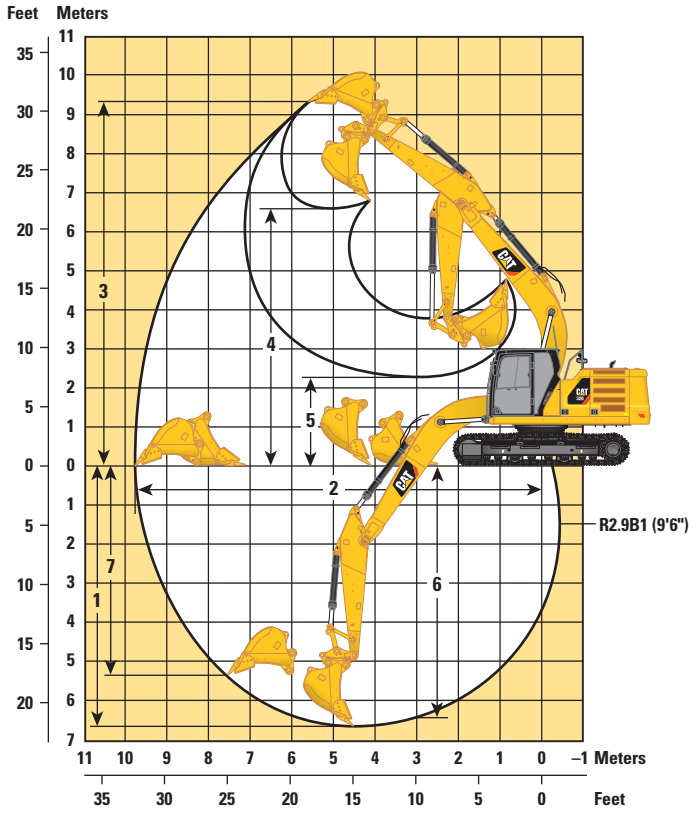
All dimensions are approximate and may vary depending on bucket selection.



Boom Options	Reach Boom 5.7 m (18'8")		SLR Boom 8.85 m (29'0")			
Stick Options	Reach Stick R2.9B1 (9'6")		SLR Stick 6.28A (20'7")		6.28A (20'7")	
1 Machine Height:						
Top of Cab Height	2960 mm	9'9"	2960 mm	9'9"	2960 mm	9'9"
Top of FOGS Height	3100 mm	10'2"	3100 mm	10'2"	3100 mm	10'2"
Handrails Height	2950 mm	9'8"	2950 mm	9'8"	2950 mm	9'8"
With Boom/Stick/Bucket Installed	3160 mm	10'4"	3190 mm	10'6"	3190 mm	10'6"
With Boom/Stick Installed	2910 mm	9'7"	3070 mm	10'1"	3070 mm	10'1"
With Boom Installed	2480 mm	8'2"	2650 mm	8'8"	2650 mm	8'8"
2 Machine Length:						
With Boom/Stick/Bucket Installed	9530 mm	31'3"	12 750 mm	41'10"	12 750 mm	41'10"
With Boom/Stick Installed	9500 mm	31'2"	12 760 mm	41'10"	12 760 mm	41'10"
With Boom Installed	8450 mm	27'9"	8920 mm	29'3"	8920 mm	29'3"
3 Upperframe Width without Walkways	2780 mm	9'1"	2780 mm	9'1"	2780 mm	9'1"
4 Tail Swing Radius	2830 mm	9'3"	2830 mm	9'3"	2830 mm	9'3"
5 Counterweight Clearance	1050 mm	3'5"	1050 mm	3'5"	1050 mm	3'5"
6 Ground Clearance	470 mm	1'7"	470 mm	1'7"	470 mm	1'7"
7 Track Length – Length to Center of Rollers	3650 mm	12'0"	3650 mm	12'0"	3650 mm	12'0"
8 Track Gauge – Extended	2380 mm	7'9"	2380 mm	7'9"	2380 mm	7'9"
9 Track Width:						
790 mm (31 in) Shoes	3170 mm	10'5"	3170 mm	10'5"	3170 mm	10'5"
10 Undercarriage Width (with steps/without steps):						
790 mm (31 in) Shoes	3170 mm	10'5"	3170 mm	10'5"	3170 mm	10'5"
Bucket Type	GD		Ditch Cleaning (DC)		GD	
Bucket Capacity	1.14 m^3	1.50 yd^3	0.57 m^3	0.75 yd^3	0.53 m^3	0.69 yd^3
Bucket Tip Radius	1470 mm	4'10"	1070 mm	3'6"	1220 mm	4'0"

Working Ranges

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

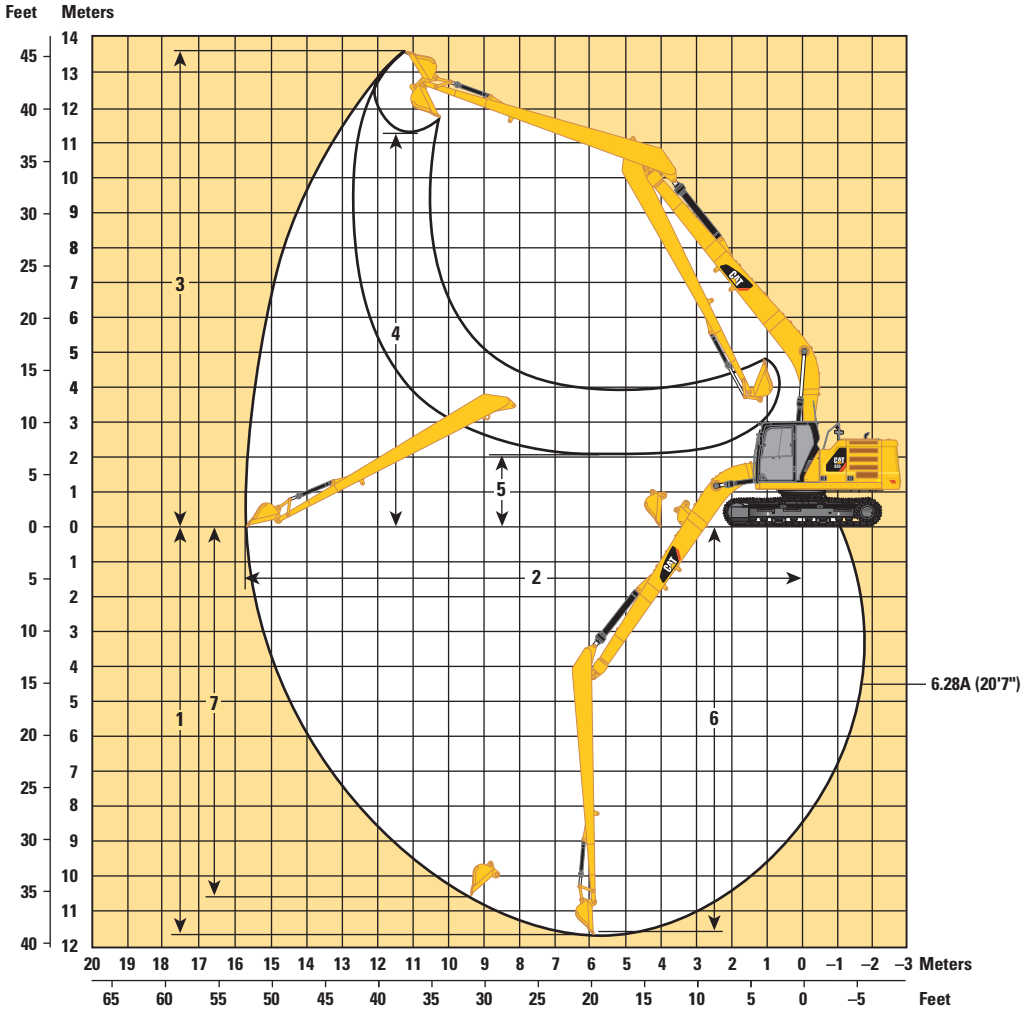


Boom Option	Reach Boom 5.7 m (18'8")	
Stick Option	**Reach Stick R2.9B1 (9'6")**	
1 Maximum Digging Depth	6620 mm	21'9"
2 Maximum Reach at Ground Line	9760 mm	32'0"
3 Maximum Cutting Height	9330 mm	30'7"
4 Maximum Loading Height	6590 mm	21'7"
5 Minimum Loading Height	2270 mm	7'5"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6440 mm	21'2"
7 Maximum Vertical Wall Digging Depth	5360 mm	17'7"
Bucket Digging Force (SAE)	143 kN	32,233 lbf
Bucket Digging Force (ISO)	163 kN	36,711 lbf
Stick Digging Force (SAE)	105 kN	23,668 lbf
Stick Digging Force (ISO)	109 kN	24,486 lbf
Bucket Type	GD	
Bucket Capacity	1.14 m^3	1.50 yd^3
Bucket Tip Radius	1470 mm	4'10"

320 Hydraulic Excavator Specifications

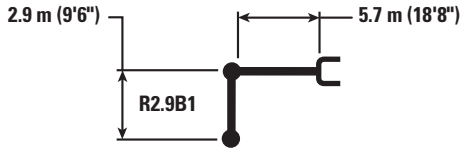
Working Ranges

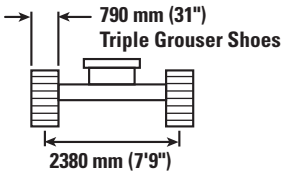
All dimensions are approximate and may vary depending on bucket selection.

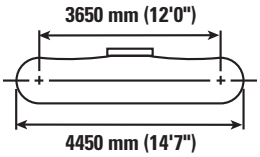


Boom Option	SLR Boom 8.85 m (29'0")			
Stick Option	SLR Stick			
	6.28A (20'7")		6.28A (20'7")	
1 Maximum Digging Depth	11 540 mm	37'10"	11 690 mm	38'4"
2 Maximum Reach at Ground Line	15 570 mm	51'1"	15 730 mm	51'7"
3 Maximum Cutting Height	13 540 mm	44'5"	13 610 mm	44'8"
4 Maximum Loading Height	11 440 mm	37'6"	11 290 mm	37'0"
5 Minimum Loading Height	2240 mm	7'4"	2080 mm	6'10"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	11 440 mm	37'6"	11 590 mm	38'0"
7 Maximum Vertical Wall Digging Depth	11 020 mm	36'2"	10 560 mm	34'8"
Bucket Digging Force (SAE)	62 kN	13,841 lbf	54 kN	12,119 lbf
Bucket Digging Force (ISO)	62 kN	13,841 lbf	60 kN	13,549 lbf
Stick Digging Force (SAE)	49 kN	10,950 lbf	48 kN	10,791 lbf
Stick Digging Force (ISO)	49 kN	10,950 lbf	49 kN	10,950 lbf
Bucket Type	Ditch Cleaning (DC)		GD	
Bucket Capacity	0.57 m^3	0.75 yd^3	0.53 m^3	0.69 yd^3
Bucket Tip Radius	1070 mm	3'6"	1230 mm	4'0"

Reach Boom Lift Capacities – Counterweight: 4.2 mt (9,300 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**							*4950	*4950			*4300 ***9,550**	*4300 ***9,550**	6150 **240**
6000 mm **240 in**	kg **lb**							*5450 ***11,950**	*5450 **11,900**			*4000 ***8,800**	*4000 ***8,800**	7290 **290**
4500 mm **180 in**	kg **lb**							*6000 ***13,000**	5400 **11,600**	*5650 ***12,350**	3800 **8,200**	*3900 ***8,600**	3450 **7,600**	7990 **320**
3000 mm **120 in**	kg **lb**					*8700 ***18,750**	7850 **16,850**	*6850 ***14,900**	5150 **11,100**	5750 **12,300**	3700 **8,000**	*4000 ***8,800**	3150 **6,950**	8360 **330**
1500 mm **60 in**	kg **lb**					*10 550 ***22,800**	7350 **15,800**	*7800 ***16,800**	4900 **10,600**	5600 **12,050**	3600 **7,750**	*4250 ***9,350**	3050 **6,700**	8450 **340**
0 mm **0 in**	kg **lb**			*6600 ***15,200**	*6600 ***15,200**	*11 600 ***25,050**	7050 **15,200**	7600 **16,400**	4750 **10,250**	5500 **11,850**	3500 **7,600**	*4700 ***10,350**	3100 **6,800**	8260 **330**
–1500 mm **–60 in**	kg **lb**	*7100 ***15,800**	*7100 ***15,800**	*11 400 ***25,900**	*11 400 ***25,900**	*11 700 ***25,350**	6950 **15,000**	7550 **16,200**	4700 **10,050**	5500 **11,800**	3500 **7,550**	5250 **11,500**	3350 **7,350**	7780 **310**
–3000 mm **–120 in**	kg **lb**	*12 100 ***27,150**	*12 100 ***27,150**	*15 500 ***33,600**	13 550 **29,050**	*10 950 ***23,700**	7050 **15,150**	7600 **16,300**	4700 **10,150**			6150 **13,650**	3900 **8,700**	6950 **280**
–4500 mm **–180 in**	kg **lb**			*12 400 ***26,550**	*12 400 ***26,550**	*8950 ***19,000**	7250 **15,600**					*6750 ***14,850**	5400 **12,100**	5600 **220**

* **ISO 10567**

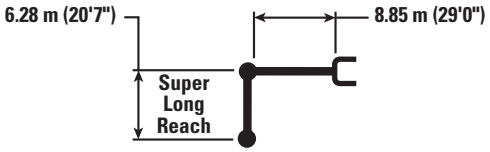
*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories 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.

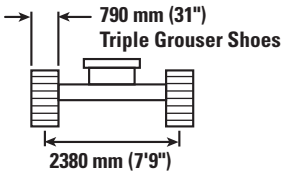
Lift capacity stays with ±5% for all available track shoes.

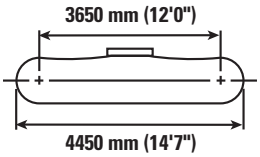
Always refer to the appropriate Operation and Maintenance Manual for specific product information.

320 Hydraulic Excavator Specifications

Super Long Reach Boom Lift Capacities – Counterweight: 4.7 mt (10,400 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**
12 000 mm **480 in**	kg **lb**											*1250 ***2,800**	*1250 ***2,800**	10 350 **400**
10 500 mm **420 in**	kg **lb**											*1200 ***2,600**	*1200 ***2,600**	11 660 **460**
9000 mm **360 in**	kg **lb**											*1150 ***2,450**	*1150 ***2,450**	12 660 **500**
7500 mm **300 in**	kg **lb**											*1100 ***2,400**	*1100 ***2,400**	13 410 **530**
6000 mm **240 in**	kg **lb**											*1100 ***2,400**	*1100 ***2,400**	13 970 **550**
4500 mm **180 in**	kg **lb**											*1100 ***2,400**	*1100 ***2,400**	14 340 **570**
3000 mm **120 in**	kg **lb**			*4700 ***11,850**	*4700 ***11,850**	*6750 ***14,450**	*6750 ***14,450**	*5000 ***10,750**	*5000 ***10,750**	*4100 ***8,800**	3700 **7,950**	*1150 ***2,500**	*1150 ***2,500**	14 550 **580**
1500 mm **60 in**	kg **lb**					*6750 ***16,000**	6550 **14,200**	*5900 ***12,750**	4550 **9,800**	*4650 ***10,050**	3350 **7,250**	*1200 ***2,600**	1150 **2,500**	14 600 **580**
0 mm **0 in**	kg **lb**			*2000 ***4,550**	*2000 ***4,550**	*4650 ***10,700**	*4650 ***10,700**	*6650 ***14,350**	4100 **8,850**	5100 **11,000**	3100 **6,600**	*1250 ***2,750**	1150 **2,450**	14 490 **570**
–1500 mm **–60 in**	kg **lb**	*2100 ***4,600**	*2100 ***4,600**	*2700 ***6,100**	*2700 ***6,100**	*4650 ***10,500**	*4650 ***10,500**	6700 **14,400**	3850 **8,250**	4900 **10,550**	2850 **6,150**	*1350 ***3,000**	1150 **2,500**	14 230 **560**
–3000 mm **–120 in**	kg **lb**	*2850 ***6,350**	*2850 ***6,350**	*3550 ***7,900**	*3550 ***7,900**	*5200 ***11,750**	*5200 ***11,750**	6550 **14,100**	3700 **7,950**	4750 **10,250**	2750 **5,900**	*1500 ***3,300**	1200 **2,600**	13 790 **550**
–4500 mm **–180 in**	kg **lb**	*3650 ***8,150**	*3650 ***8,150**	*4400 ***9,900**	*4400 ***9,900**	*6050 ***13,700**	5550 **11,950**	6500 **14,000**	3650 **7,850**	4700 **10,100**	2700 **5,800**	*1700 ***3,750**	1250 **2,800**	13 170 **520**
–6000 mm **–240 in**	kg **lb**	*4550 ***10,150**	*4550 ***10,150**	*5400 ***12,150**	*5400 ***12,150**	*7200 ***16,350**	5650 **12,200**	6550 **14,100**	3700 **7,950**	4700 **10,150**	2700 **5,850**	*2000 ***4,450**	1400 **3,100**	12 340 **490**
–7500 mm **–300 in**	kg **lb**	*5500 ***12,250**	*5500 ***12,250**	*6600 ***14,800**	*6600 ***14,800**	*8300 ***17,800**	5850 **12,600**	*6450 ***13,850**	3800 **8,200**	4800 **10,350**	2800 **6,000**	*2500 ***5,650**	1650 **3,700**	11 240 **440**
–9000 mm **–360 in**	kg **lb**			*7950 ***18,000**	*7950 ***18,000**	*7050 ***14,950**	6150 **13,250**	*5550 ***11,800**	4000 **8,650**	*4500 ***9,500**	2950 **6,300**	*3100 ***6,800**	2100 **4,700**	9800 **380**

* **ISO 10567**

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Lift capacity stays with ±5% for all available track shoes.

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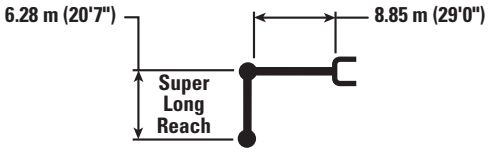
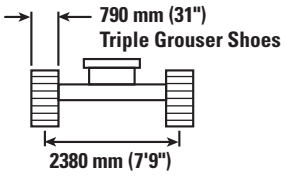
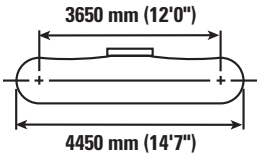
Super Long Reach Boom Lift Capacities – Counterweight: 4.7 mt (10,400 lb) – without Bucket *(continued)*







		9000 mm/360 in		10 500 mm/420 in		12 000 mm/480 in		13 500 mm/540 in				
												mm in
12 000 mm **480 in**	kg **lb**									*1250 ***2,800**	*1250 ***2,800**	10 350 **400**
10 500 mm **420 in**	kg **lb**			*2350 ***4,700**	*2350 ***4,700**					*1200 ***2,600**	*1200 ***2,600**	11 660 **460**
9000 mm **360 in**	kg **lb**			*2450 ***5,450**	*2450 ***5,450**	*2000 ***3,650**	2000 ***3,650**			*1150 ***2,450**	*1150 ***2,450**	12 660 **500**
7500 mm **300 in**	kg **lb**			*2550 ***5,550**	2550 **5,450**	*2500 ***5,400**	1950 **4,150**			*1100 ***2,400**	*1100 ***2,400**	13 410 **530**
6000 mm **240 in**	kg **lb**			*2700 ***5,900**	2450 **5,250**	*2600 ***5,700**	1900 **4,050**	*1850 ***3,250**	1500 **3,100**	*1100 ***2,400**	*1100 ***2,400**	13 970 **550**
4500 mm **180 in**	kg **lb**	*3150 ***6,850**	3050 **6,500**	*2900 ***6,300**	2350 **5,000**	*2750 ***5,950**	1850 **3,900**	2350 ***4,600**	1450 **3,050**	*1100 ***2,400**	*1100 ***2,400**	14 340 **570**
3000 mm **120 in**	kg **lb**	*3500 ***7,600**	2800 **6,050**	*3150 ***6,850**	2200 **4,700**	2800 **6,000**	1750 **3,700**	2300 **4,900**	1400 **2,950**	*1150 ***2,500**	*1150 ***2,500**	14 550 **580**
1500 mm **60 in**	kg **lb**	*3900 ***8,400**	2600 **5,550**	3300 **7,150**	2050 **4,400**	2700 **5,800**	1650 **3,500**	2250 **4,800**	1350 **2,800**	*1200 ***2,600**	1150 **2,500**	14 600 **580**
0 mm **0 in**	kg **lb**	3950 **8,550**	2400 **5,150**	3200 **6,850**	1900 **4,100**	2600 **5,600**	1550 **3,300**	2200 **4,650**	1300 **2,700**	*1250 ***2,750**	1150 **2,450**	14 490 **570**
–1500 mm **–60 in**	kg **lb**	3800 **8,200**	2250 **4,850**	3100 **6,600**	1800 **3,900**	2550 **5,450**	1500 **3,200**	2150 **4,600**	1250 **2,650**	*1350 ***3,000**	1150 **2,500**	14 230 **560**
–3000 mm **–120 in**	kg **lb**	3700 **7,950**	2150 **4,650**	3000 **6,450**	1750 **3,750**	2500 **5,350**	1450 **3,100**	2100 ***3,650**	1200 **2,600**	*1500 ***3,300**	1200 **2,600**	13 790 **550**
–4500 mm **–180 in**	kg **lb**	3650 **7,850**	2100 **4,550**	2950 **6,350**	1700 **3,700**	2500 **5,350**	1450 **3,050**			*1700 ***3,750**	1250 **2,800**	13 170 **520**
–6000 mm **–240 in**	kg **lb**	3650 **7,900**	2100 **4,550**	3000 **6,400**	1750 **3,700**	2500 ***5,150**	1450 **3,150**			*2000 ***4,450**	1400 **3,100**	12 340 **490**
–7500 mm **–300 in**	kg **lb**	3700 **8,050**	2200 **4,700**	3050 **6,600**	1800 **3,850**					*2500 ***5,650**	1650 **3,700**	11 240 **440**
–9000 mm **–360 in**	kg **lb**	*3600 ***7,500**	2300 **5,000**							*3100 ***6,800**	2100 **4,700**	9800 **380**

* 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 Hydraulic Excavator Specifications

Bucket Specifications and Compatibility – 320

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,300 lb) Counterweight	4.7 mt (10,400 lb) Counterweight
									Reach Boom	SLR Boom
		mm	in	m^3	yd^3	kg	lb	%	R2.9 (9'6")	6.28A (20'7")
Pin-On (No Quick Coupler)										
General Duty – Capacity (GDC)	B	600	24	0.55	0.72	619	1,363	100	●	
	B	750	30	0.75	0.98	710	1,566	100	●	
	B	900	36	0.95	1.24	787	1,735	100	●	
	B	1050	42	1.16	1.52	848	1,870	100	◉	
	B	1200	48	1.38	1.80	926	2,041	100	⊖	
	B	1350	54	1.59	2.08	1004	2,213	100	X	
General Duty – Capacity (GDC) – Wide Tip	B	600	24	0.55	0.72	633	1,394	100	●	
	B	750	30	0.75	0.98	731	1,612	100	●	
	B	900	36	0.95	1.24	813	1,793	100	●	
	B	1050	42	1.16	1.52	895	1,973	100	◉	
	B	1200	48	1.38	1.80	979	2,158	100	⊖	
	B	1350	54	1.59	2.08	1063	2,343	100	X	
Heavy Duty (HD)	B	600	24	0.46	0.61	649	1,431	100	●	
	B	750	30	0.64	0.84	748	1,649	100	●	
	B	900	36	0.81	1.06	826	1,821	100	●	
	B	1050	42	1.00	1.31	880	1,940	100	●	
	B	1200	48	1.19	1.56	972	2,141	100	◉	
	B	1350	54	1.38	1.81	1054	2,322	100	X	
Heavy Duty – Power (HDP)	B	900	36	0.79	1.03	842	1,856	100	●	
	B	1050	42	0.96	1.26	907	1,999	100	●	
	B	1200	48	1.14	1.49	993	2,188	100	X	
Severe Duty (SD)	B	600	24	0.46	0.61	694	1,530	90	●	
	B	750	30	0.64	0.84	802	1,768	90	●	
	B	900	36	0.81	1.06	889	1,959	90	●	
	B	1050	42	1.00	1.31	964	2,125	90	●	
	B	1200	48	1.19	1.56	1053	2,320	90	◉	
Severe Duty – Power (SDP)	B	900	36	0.79	1.03	908	2,001	90	●	
Mud/Cleanup (M/CU)	B	1700	72	1.60	2.09	979	2,158	100	○	
Ditch Cleaning (DC)	B	1500	60	1.01	1.32	652	1,437	100	●	
	B	1800	72	1.24	1.62	740	1,631	100	◉	
Ditch Cleaning – Tilt (DCT)	B	1500	60	0.90	1.18	948	2,090	100	●	
	B	1800	72	1.11	1.45	1063	2,344	100	◉	
	B	1800	72	1.40	1.83	1148	2,531	100	○	
	B	2000	79	1.23	1.61	1132	2,496	100	⊖	
General Duty (GD)	312	900	36	0.53	0.69	403	888	100		◇
Ditch Cleaning (DC) Long Reach	312	1200	48	0.57	0.74	386	851	100		◇
Maximum load with pin-on (payload + bucket)								kg	3010	800
								lb	6,636	1,764

The above loads are in compliance with hydraulic excavator standard EN474, 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.

Bucket weight with General Duty tips.

Maximum Material Density:

- ● 2100 kg/m^3 (3,500 lb/yd^3)
- ◉ 1800 kg/m^3 (3,000 lb/yd^3)
- ⊖ 1500 kg/m^3 (2,500 lb/yd^3)
- ○ 1200 kg/m^3 (2,000 lb/yd^3)
- ◇ 900 kg/m^3 (1,500 lb/yd^3)
- 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.

Bucket Specifications and Compatibility – 320 Long

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,300 lb) Counterweight Reach Boom	4.7 mt (10,400 lb) Counterweight SLR Boom
		mm	in	m^3	yd^3	kg	lb	%	R2.9 (9'6")	6.28A (20'7")
With Cat Pin Grabber Coupler										
General Duty – Capacity (GDC)	B	600	24	0.55	0.72	619	1,363	100	●	
	B	750	30	0.75	0.98	710	1,566	100	●	
	B	900	36	0.95	1.24	787	1,735	100	◉	
	B	1050	42	1.16	1.52	848	1,870	100	⊖	
	B	1200	48	1.38	1.80	926	2,041	100	○	
	B	1350	54	1.59	2.08	1004	2,213	100	◇	
General Duty – Capacity (GDC) – Wide Tip	B	600	24	0.55	0.72	633	1,394	100	●	
	B	750	30	0.75	0.98	731	1,612	100	●	
	B	900	36	0.95	1.24	813	1,793	100	◉	
	B	1050	42	1.16	1.52	895	1,973	100	⊖	
	B	1200	48	1.38	1.80	979	2,158	100	○	
	B	1350	54	1.59	2.08	1063	2,343	100	◇	
Heavy Duty (HD)	B	600	24	0.46	0.61	649	1,431	100	●	
	B	750	30	0.64	0.84	748	1,649	100	●	
	B	900	36	0.81	1.06	826	1,821	100	●	
	B	1050	42	1.00	1.31	880	1,940	100	◉	
	B	1200	48	1.19	1.56	972	2,141	100	○	
	B	1350	54	1.38	1.81	1054	2,322	100	○	
Heavy Duty – Power (HDP)	B	900	36	0.79	1.03	842	1,856	100	●	
	B	1050	42	0.96	1.26	907	1,999	100	◉	
	B	1200	48	1.14	1.49	993	2,188	100	⊖	
Heavy Duty – Pin Grabber Performance (HD – PGP)	B	600	24	0.44	0.57	676	1,491	100	●	
	B	750	30	0.60	0.79	778	1,715	100	●	
	B	900	36	0.76	1.00	864	1,904	100	●	
	B	1050	42	0.93	1.22	928	2,045	100	◉	
	B	1200	48	1.11	1.45	1016	2,239	100	⊖	
	B	1350	54	1.28	1.67	1104	2,432	100	○	
Severe Duty (SD)	B	600	24	0.46	0.61	694	1,530	90	●	
	B	750	30	0.64	0.84	802	1,768	90	●	
	B	900	36	0.81	1.06	889	1,959	90	●	
	B	1050	42	1.00	1.31	964	2,125	90	◉	
	B	1200	48	1.19	1.56	1053	2,320	90	⊖	
Severe Duty – Power (SDP)	B	900	36	0.79	1.03	908	2,001	90	●	
Mud/Cleanup (M/CU)	B	1700	72	1.60	2.09	979	2,158	100	◇	
Ditch Cleaning (DC)	B	1500	60	1.01	1.32	652	1,437	100	◉	
	B	1800	72	1.24	1.62	740	1,631	100	⊖	
Ditch Cleaning – Tilt (DCT)	B	1500	60	0.90	1.18	948	2,090	100	◉	
	B	1800	72	1.11	1.45	1063	2,344	100	○	
	B	1800	72	1.40	1.83	1148	2,531	100	◇	
	B	2000	79	1.23	1.61	1132	2,496	100	○	
Maximum load with coupler (payload + bucket)								kg	2588	378
								lb	5,706	834

The above loads are in compliance with hydraulic excavator standard EN474, 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.

Bucket weight with General Duty tips.

Maximum Material Density:

- ● 2100 kg/m^3 (3,500 lb/yd^3)
- ◉ 1800 kg/m^3 (3,000 lb/yd^3)
- ⊖ 1500 kg/m^3 (2,500 lb/yd^3)
- ○ 1200 kg/m^3 (2,000 lb/yd^3)
- ◇ 900 kg/m^3 (1,500 lb/yd^3)

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 Hydraulic Excavator Specifications

Work Tool Offering Guide*

Boom Type		Reach Boom
Stick Size		**R2.9 (9'6")**
Hydraulic Hammer	B20	50% C
	H115Es	
	H120Es	50% C
	H130Es	50% P
Multi-Processor	MP318 CC Jaw	
	MP318 D Jaw	
	MP318 P Jaw	^
	MP318 U Jaw	
	MP318 S Jaw	
Pulverizer	P215	
Demolition and Sorting Grapple	G315B-D/R	^
	G320B-D/R	**, ##
	G315B-WH	^
Scrap and Demolition Shear	S320B	
	S325B	#
	S2050	#
Compactor (Vibratory Plate)	CVP110	
Orange Peel Grapple		These work tools are available for the 320. Consult your Cat dealer for proper match.
Trash Grapple		
Thumbs		
Rakes		
Pin Grabber Coupler	Cat PG	

*Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

	Match
**	Match; Pin-On only
#	Match; Boom Mount
##	Work over the front only
^	Work over the front only with Cat PG (match; Pin-On and Cat PG)
50% P	Allowed usage with Pin-On and Coupler on machine less than 50%
50% C	Allowed usage with Coupler on machine less than 50%

Demolition and Sorting Grapple: D – Demolition shells, R – Recycling shells, WH – Waste Handling shells

Standard and Optional Equipment

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

	Standard	Optional
ENGINE		
Cat C4.4 ACERT Twin Turbo Tier 4 Final diesel engine	✓	
Three selectable power modes	✓	
One-touch low idle with automatic engine speed control	✓	
Automatic engine idle shutdown	✓	
Work up to 3000 m (9,842.5 ft) above sea level without engine power de-rating	✓	
46° C (115° F) high-ambient cooling capacity	✓	
52° C (125° F) high-ambient cooling capacity		✓
Cold starting capability for –32° C (–25° F)	✓	
Double element air filter with integrated precleaner	✓	
Electric fuel priming pump	✓	
Reversible electric cooling fans	✓	
Biodiesel capability up to B20	✓	
HYDRAULIC SYSTEM		
Boom and stick regeneration circuits	✓	
Electronic main control valve	✓	
Auto hydraulic oil warm up	✓	
Automatic two-speed travel	✓	
Boom and stick drift reduction valve	✓	
Element type main hydraulic filter	✓	
Slider joysticks	✓	
Tandem type electronic main pump	✓	
Hammer return filter circuit		✓
Combined flow/high pressure auxiliary circuit		✓
Medium pressure auxiliary circuit		✓
Quick coupler circuit for Cat Pin Grabber		✓
Fine swing control	✓	

	Standard	Optional
UNDERCARRIAGE AND STRUCTURES		
Tie-down points on base frame (ISO 15818 compliant)	✓	
Center track guiding guard	✓	
Standard bottom guards	✓	
Standard swivel guard	✓	
Standard travel motor guards	✓	
Grease lubricated track links	✓	
4200 kg (9,300 lb) counterweight	✓	
4700 kg (10,400 lb) counterweight for Super Long Reach		✓
Semi-HD swing frame for C4.4 ACERT	✓	
Standard swing bearing	✓	
Base frame with HD track rollers and standard carrier rollers	✓	
Final drive with standard travel motor	✓	
BOOM, STICKS AND LINKAGES		
790 mm (31 in) triple grouser track shoes	✓	
5.7 m (18'8") Reach boom	✓	
2.9 m (9'6") stick	✓	
Super Long Reach 8.85 m (29'0") boom		✓
Super Long Reach 6.28 m (20'7") stick		✓
Bucket linkage, B1-family without lifting eye, Cat GRADE	✓	
Bucket linkage, A-family without lifting eye, SLR		✓

(continued on next page)

320 Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional
ELECTRICAL SYSTEM		
Machine electronic control module (×2)	✓	
1,000 CCA maintenance-free batteries (×2)	✓	
Centralized electrical disconnect switch	✓	
Programmable time-delay LED working lights	✓	
LED chassis light, LH and RH boom lights for Reach and SLR, cab lights	✓	
CAT CONNECT TECHNOLOGY		
Cat Product Link™	✓	
Cat GRADE with 2D (not available on SLR)	✓	
Cat GRADE with Advanced 2D (not available on SLR)		✓
Cat GRADE with 3D (not available on SLR)		✓
Cat Assist: – Boom Assist – Bucket Assist – Swing Assist – Grade Assist	✓	
Cat Payload: – Payload Information – Static Weigh – Auto Calibration	✓	

	Standard	Optional
SERVICE AND MAINTENANCE		
Sampling ports for Scheduled Oil Sampling (S·O·S℠)	✓	
Preventative Maintenance ready (QuickEvac™)		✓
Grouped location for engine oil and fuel filters	✓	
Ground level second dipstick for engine oil	✓	
Remote flash	✓	
SAFETY AND SECURITY		
Rearview camera and side RH mirror	✓	
360° visibility		✓
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	✓	
Radiator screen		✓
Bluetooth® receiver	✓	
RH handrail and hand hold (ISO 2867 compliant)	✓	
Travel alarm	✓	

320 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
- Dual exit rear window kit
- Rain protector plus cab light cover
- Seat belt, retractable (75 mm/3 in width)

SAFETY AND SECURITY
- Bluetooth key fob

ELECTRICAL
- Jump start wiring
- LED premium lighting package

GUARDS
- Standard swivel guard
- Side rubber bumper
- 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
- Full protecting vandalism guard

Cab Options

	Deluxe
ROPS, standard sound suppression	●
High-resolution 203 mm (8 in) LCD touch screen monitor	●
High-resolution 203 mm (8 in) LCD touch screen monitor + additional monitor (only for use with Cat GRADE with Advanced 2D or Cat GRADE with 3D)	○
High-resolution 254 mm (10 in) LCD touch screen monitor (only for use with 360° visibility)	○
High-resolution 254 mm (10 in) LCD touch screen monitor + additional monitor (only for use with 360° visibility and Cat GRADE with Advanced 2D or Cat GRADE with 3D)	○
Automatic bi-level air conditioner	●
Jog dial and shortcut keys for monitor control	●
Keyless push-to-start engine control	●
Height-adjustable console, infinite with no tool	●
Air-adjustable seat suspension	●
51 mm (2 in) seat belt	●
Seat heater	●
Tilt-up 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	●
Polycarbonate skylight hatch, openable	●
LED dome and lower interior lights	●
Roller front sunscreen	●
Roller rear sunscreen	○
Rain protector and cab light covers (only for use with 360° visibility)	●
Beacon ready	●
Washable floor mat	●
Storage tray in pump compartment	●
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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