



# 320

## 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 Hydraulic Excavator Specifications

## Engine

Engine Model	Cat® C7.1	
Net Power		
ISO 9249	117 kW	157 hp
ISO 9249 (DIN)	159 hp (metric)	
Engine Power		
ISO 14396	118 kW	158 hp
ISO 14396 (DIN)	160 hp (metric)	
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in³
Biodiesel capability	Up to B20 <sup>(1)</sup>	

- Meets Brazil MAR-1 emission standards equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Recommended for use up to 4500 m (14,760 ft) altitude with engine power derate above 3000 m (9,840 ft).
- Advertised power is tested per the specified standard 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.
- Engine speed at 1,800 rpm.

<sup>(1)</sup>Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels\*\* up to:

- ✓ 100% biodiesel FAME (fatty acid methyl ester)\*
- ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

\*For use of blends higher than 20% biodiesel, consult your Cat dealer.

\*\*Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

## Swing Mechanism

Swing Speed	11.25 rpm	
Maximum Swing Torque	82 kN·m	60,300 lbf·ft

## Weights

Operating Weight	21 600 kg	47,600 lb
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- Reach boom 5.7 m (18'8"), R2.9 (9'6") stick, 1.19 m³ (1.56 yd³) Heavy Duty (HD) bucket, 600 mm (24 in) triple grouser shoes, and 4.2 mt (9,260 lb) counterweight.

## Track

Standard Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	700 mm	28 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 – Long Undercarriage	205 kN	45,996 lbf

## Hydraulic System

Main System – Maximum Flow – Implement	429 L/min (215 × 2 pumps)	113 gal/min (57 × 2 pumps)
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Equipment – Heavy Lift Mode/Auto Dig Boost	38 000 kPa	5,510 psi
Maximum Pressure – Travel	34 300 kPa	4,974 psi
Maximum Pressure – Swing	27 500 kPa	3,998 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

## Service Refill Capacities

Fuel Tank Capacity	345 L	91.1 gal
Cooling System	25 L	6.6 gal
Engine Oil	25 L	6.6 gal
Swing Drive	6 L	1.6 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/Rollover Protective Structure (ROPS)	ISO 12117-2:2008
Operator Protective Guards (OPG) (optional)	ISO 10262:1998 Level II

## Sound Performance

ISO 6395:2008 (external)	100 dB(A)
ISO 6396:2008 (inside cab)	70 dB(A)

- External Sound – The spectator sound power level is measured according to the test procedures and conditions specified in ISO 6395:2008 for a Cat machine that is properly equipped and maintained. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Internal Sound – The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in noisy environment(s).

# 320 Hydraulic Excavator Specifications

## Operating Weights and Ground Pressures

	600 mm (24 in) Triple Grouser Shoes				700 mm (28 in) Triple Grouser Shoes				
	Weight		Ground Pressure		Weight		Ground Pressure		
Base Machine Configurations									
Base Frame with Track Rollers and Carrier Rollers									
4.2 mt (9,260 lb) Counterweight + Long Undercarriage Base Machine									
Reach Boom + R2.9 (9'6") Stick + 1.19 m³ (1.56 yd³) HD Bucket	21 600 kg	47,600 lb	44.9 kPa	6.5 psi	22 000 kg	48,500 lb	39.2 kPa	5.7 psi	
HD Reach Boom + HD R2.9 (9'6") Stick + 1.19 m³ (1.56 yd³) HD Bucket	21 800 kg	48,100 lb	45.3 kPa	6.6 psi	22 200 kg	49,000 lb	39.6 kPa	5.7 psi	

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

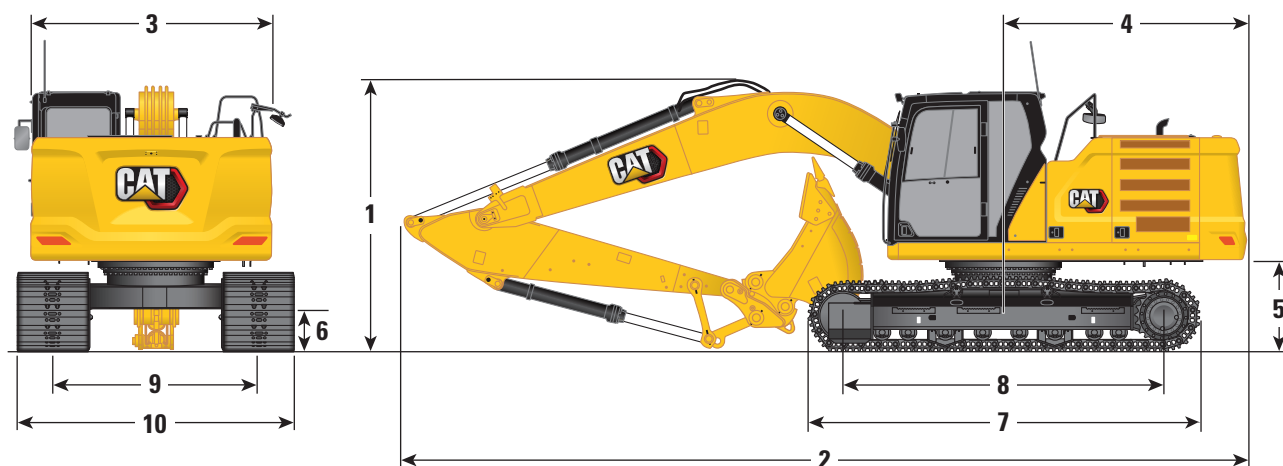
## Major Component Weights

	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 – does not include boom, stick, bucket, boom cylinders, stick cylinder, bucket cylinder, tracks, 90% fuel tank and 75 kg [165 lb] operator)	14 540	32,050
Track Shoes:		
600 mm (24 in) Width, 10 mm (0.39 in) Thick Triple Grouser Track Shoes	2690	5,930
700 mm (28 in) Width, 10 mm (0.39 in) Thick Triple Grouser Track Shoes	3050	6,720
Two Boom Cylinders	340	750
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	310	680
Counterweight:		
4.2 mt (9,260 lb) Counterweight	4200	9,260
Swing Frame:		
Semi-HD Swing Frame	1910	4,210
Undercarriage:		
Standard Base Frame with HD Track Rollers and Standard Carrier Rollers	4390	9,680
Booms (including lines, pins, stick cylinder):		
Reach Boom 5.7 m (18'8")	1710	3,770
HD Reach Boom 5.7 m (18'8")	2010	4,400
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick R2.9B1 (9'6")	1080	2,400
HD Reach Stick R2.9B1 (9'6")	1110	2,400
Bucket (without linkage):		
1.19 m³ (1.56 yd³) HD	940	2,080
Quick Couplers (QC):		
Universal QC	230	500
Pin Grabber QC	390	860

# 320 Hydraulic Excavator Specifications

## Dimensions

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



### Boom Options

Reach/HD Reach Boom  
5.7 m (18'8")

### Stick Options

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

#### 1 Machine Height:

Top of Cab Height	2960 mm	9'9"
Top of GNSS Antenna Height (if installed)	3000 mm	9'10"
Top of OPG Height	3100 mm	10'2"
Handrail 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

2780 mm	9'1"
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#### 4 Tail Swing Radius

2830 mm	9'3"
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#### 5 Counterweight Clearance

1050 mm	3'5"
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#### 6 Ground Clearance

470 mm	1'7"
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#### 7 Track Length

4450 mm	14'7"
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#### 8 Length to Center of Rollers

3650 mm	12'0"
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#### 9 Track Gauge

2380 mm	7'9"
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#### 10 Undercarriage Width:

600 mm (24 in) Shoes	2980 mm	9'9"
700 mm (28 in) Shoes	3080 mm	10'1"

#### Bucket Type

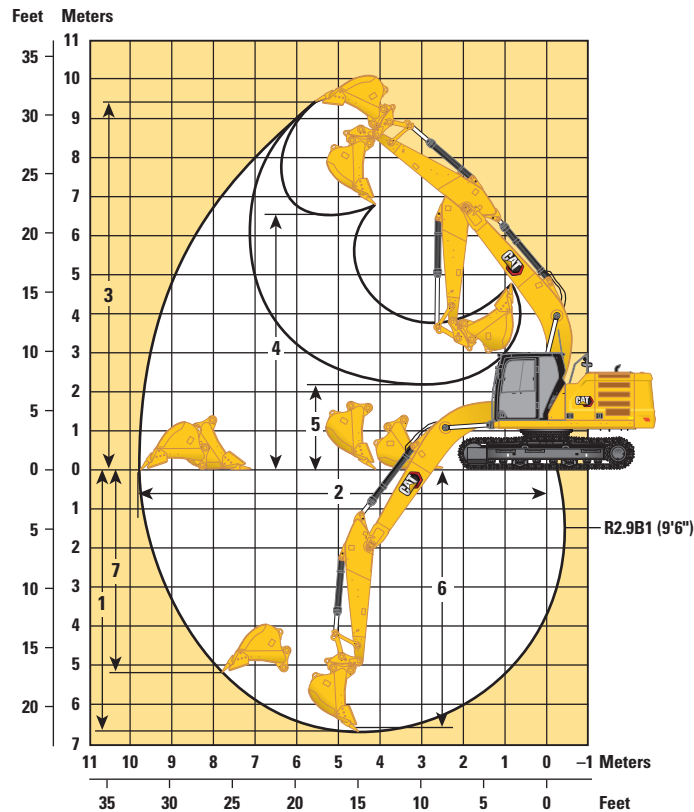
HD

Bucket Capacity	1.19 m <sup>3</sup>	1.56 yd <sup>3</sup>
Bucket Tip Radius	1570 mm	5'2"

# 320 Hydraulic Excavator Specifications

## Working Ranges

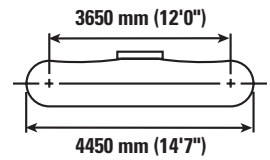
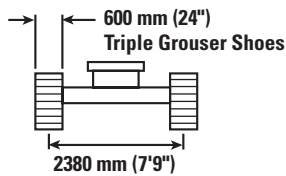
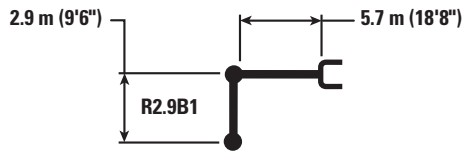
All dimensions are approximate and may vary depending on bucket selection.

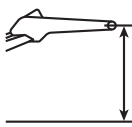















Boom Option	Reach/HD Reach Boom 5.7 m (18'8")	
Stick Option	Reach/HD Reach Stick R2.9B1 (9'6")	
1 Maximum Digging Depth	6720 mm	22'1"
2 Maximum Reach at Ground Line	9860 mm	32'4"
3 Maximum Cutting Height	9370 mm	30'9"
4 Maximum Loading Height	6490 mm	21'3"
5 Minimum Loading Height	2170 mm	7'1"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6550 mm	21'6"
7 Maximum Vertical Wall Digging Depth	5190 mm	17'0"
Bucket Digging Force (ISO)	150 kN	33,811 lbf
Stick Digging Force (ISO)	106 kN	23,911 lbf
Bucket Digging Force (ISO) – Auto Dig Boost	163 kN	36,709 lbf
Stick Digging Force (ISO) – Auto Dig Boost	115 kN	25,960 lbf
Bucket Type	HD	
Bucket Capacity	1.19 m <sup>3</sup>	1.56 yd <sup>3</sup>
Bucket Tip Radius	1570 mm	5'2"

# 320 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							*4900	*4900			*4250 *9,400	*4250 *9,400	6150 19'9"
6000 mm 240 in	kg lb							*5300 *11,650	*5300 11,550			*3900 *8,650	3850 8,600	7290 23'8"
4500 mm 180 in	kg lb							*5850 *12,700	5200 11,200	*5500 *12,000	3650 7,800	*3850 *8,450	3250 7,250	7990 26'1"
3000 mm 120 in	kg lb					*8550 *18,400	7600 16,350	*6700 *14,500	4950 10,650	5500 11,850	3550 7,600	*3950 *8,650	2950 6,550	8360 27'4"
1500 mm 60 in	kg lb					10350 *22,250	7000 15,100	7550 16,200	4700 10,100	5350 11,550	3400 7,300	*4150 *9,150	2850 6,250	8450 27'8"
0 mm 0 in	kg lb			*6550 *15,050	*6550 *15,050	*11 300 *24,450	6700 14,400	7300 15,700	4500 9,650	5250 11,300	3300 7,100	4600 10,100	2900 6,350	8260 27'1"
-1500 mm -60 in	kg lb	*7000 *15,650	*7000 *15,650	*11 350 *25,750	*11 350 *25,750	*11 400 24,500	6600 14,200	7200 15,500	4400 9,500	5250 11,250	3300 7,050	5000 10,950	3150 6,900	7780 25'5"
-3000 mm -120 in	kg lb	*12 050 *27,000	*12 050 *27,000	*15 150 *32,750	12 950 27,700	*10 700 *23,050	6650 14,350	7250 15,600	4450 9,550			5900 13,050	3700 8,150	6950 22'8"
-4500 mm -180 in	kg lb			*12 050 *25,750	*12 050 *25,750	*8650 *18,400	6900 14,850					*6550 *14,350	5100 11,500	5600 18'0"



ISO 10567:2007



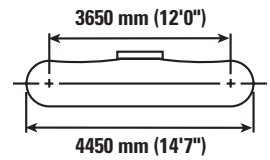
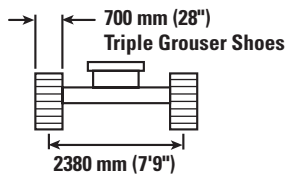
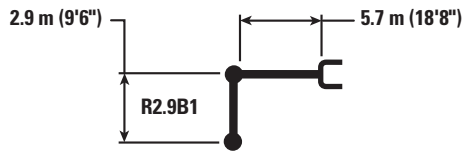
\*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories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

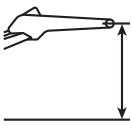













Lift capacity stays with  $\pm 5\%$  for all available track shoes.

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

# 320 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							*4900	*4900			*4250 *9,400	*4250 *9,400	6150 19'9"
6000 mm 240 in	kg lb							*5300 *11,650	*5300 *11,650			*3900 *8,650	*3900 *8,650	7290 23'8"
4500 mm 180 in	kg lb							*5850 *12,700	5300 11,350	*5500 *12,000	3700 7,950	*3850 *8,450	3300 7,350	7990 26'1"
3000 mm 120 in	kg lb					*8550 *18,400	7700 16,550	*6700 *14,500	5050 10,800	5600 12,050	3600 7,700	*3950 *8,650	3000 6,650	8360 27'4"
1500 mm 60 in	kg lb					*10 350 *22,250	7100 15,350	*7600 16,450	4750 10,250	5450 11,750	3450 7,450	*4150 *9,150	2900 6,400	8450 27'8"
0 mm 0 in	kg lb			*6550 *15,050	*6550 *15,050	*11 300 *24,450	6800 14,650	7450 15,950	4550 9,800	5350 11,500	3350 7,250	*4600 *10,150	2950 6,450	8260 27'1"
-1500 mm -60 in	kg lb	*7000 *15,650	*7000 *15,650	*11 350 *25,750	*11 350 *25,750	*11 400 *24,700	6700 14,450	7350 15,750	4500 9,650	5300 11,450	3350 7,150	5050 11,150	3200 7,000	7780 25'5"
-3000 mm -120 in	kg lb	*12 050 *27,000	*12 050 *27,000	*15 150 *32,750	13 150 28,150	*10 700 *23,050	6750 14,550	7350 15,850	4500 9,750			6000 13,300	3750 8,300	6950 22'8"
-4500 mm -180 in	kg lb			*12 050 *25,750	*12 050 *25,750	*8650 *18,400	7000 15,100					*6550 *14,350	5200 11,650	5600 18'0"



ISO 10567:2007



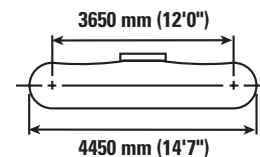
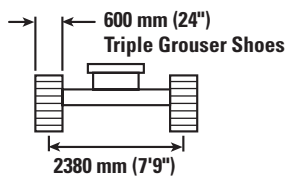
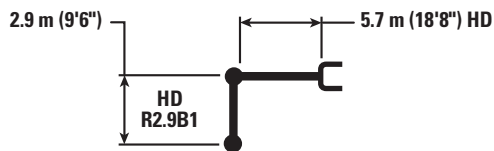
\*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories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

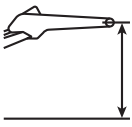













Lift capacity stays with  $\pm 5\%$  for all available track shoes.

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

# 320 Hydraulic Excavator Specifications

## HD 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							*4850	*4850			*4200 *9,350	*4200 *9,350	6150 19'9"
6000 mm 240 in	kg lb							*5300 *11,650	*5300 11,550			*3900 *8,600	3850 *8,600	7290 23'8"
4500 mm 180 in	kg lb							*5850 *12,700	5200 11,200	*5500 *12,000	3650 7,800	*3800 *8,400	3250 7,250	7990 26'1"
3000 mm 120 in	kg lb					*8550 *18,350	7600 16,350	*6700 *14,500	4950 10,650	5500 11,850	3550 7,600	*3900 *8,600	3000 6,550	8360 27'4"
1500 mm 60 in	kg lb					*10 350 *22,300	7050 15,150	7550 16,200	4700 10,100	5400 11,550	3400 7,350	*4150 *9,100	2850 6,300	8450 27'8"
0 mm 0 in	kg lb			*6700 *15,400	*6700 *15,400	*11 350 *24,500	6750 14,500	7350 15,750	4500 9,700	5300 11,350	3300 7,150	*4600 *10,100	2900 6,350	8260 27'1"
-1500 mm -60 in	kg lb	*7200 *16,050	*7200 *16,050	*11 650 *26,400	*11 650 *26,400	*11 450 24,650	6650 14,300	7250 15,550	4450 9,550	5250 11,300	3300 7,050	5000 11,000	3150 6,900	7780 25'5"
-3000 mm -120 in	kg lb	*12 350 *27,700	*12 350 *27,700	*15 150 *32,850	13 050 27,900	*10 700 *23,100	6700 14,400	7300 15,650	4450 9,600			5900 13,100	3700 8,200	6950 22'8"
-4500 mm -180 in	kg lb			*12 050 *25,850	*12 050 *25,850	*8700 *18,450	6950 14,950					*6550 *14,350	5150 11,550	5600 18'0"



ISO 10567:2007



\*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.

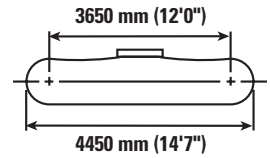
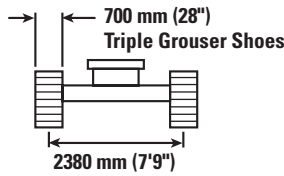
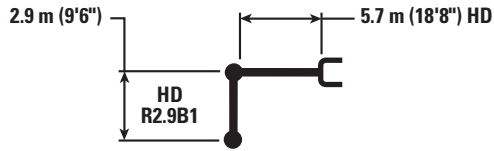
Lift capacity stays with ±5% for all available track shoes.

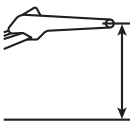
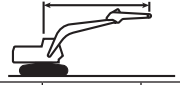












Always refer to the appropriate Operation and Maintenance Manual for specific product information.



# 320 Hydraulic Excavator Specifications

## HD 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							*4850 *11,650	*4850 *11,650			*4200 *9,350	*4200 *9,350	6150 19'9"
6000 mm 240 in	kg lb							*5300 *11,650	*5300 *11,650			*3900 *8,600	*3900 *8,600	7290 23'8"
4500 mm 180 in	kg lb							*5850 *12,700	5250 11,300	*5500 *12,000	3700 7,900	*3800 *8,400	3300 7,300	7990 26'1"
3000 mm 120 in	kg lb					*8550 *18,350	7650 16,500	*6700 *14,500	5000 10,750	5600 11,950	3550 7,650	*3900 *8,600	3000 6,600	8360 27'4"
1500 mm 60 in	kg lb					*10 350 *22,300	7100 15,300	*7600 16,400	4750 10,200	5450 11,700	3450 7,400	*4150 *9,100	2900 6,350	8450 27'8"
0 mm 0 in	kg lb			*6700 *15,400	*6700 *15,400	*11 350 *24,500	6800 14,650	7400 15,900	4550 9,800	5350 11,450	3350 7,200	*4600 *10,100	2950 6,450	8260 27'1"
-1500 mm -60 in	kg lb	*7200 *16,050	*7200 *16,050	*11 650 *26,400	*11 650 *26,400	*11 450 *24,750	6700 14,450	7300 15,700	4450 9,600	5300 11,400	3300 7,150	5050 11,100	3150 7,000	7780 25'5"
-3000 mm -120 in	kg lb	*12 350 *27,700	*12 350 *27,700	*15 150 *32,850	13 150 28,150	*10 700 *23,100	6750 14,550	7350 15,800	4500 9,700			5950 13,250	3750 8,250	6950 22'8"
-4500 mm -180 in	kg lb			*12 050 *25,850	*12 050 *25,850	*8700 *18,450	7000 15,100					*6550 *14,350	5200 11,650	5600 18'0"



ISO 10567:2007



\*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  $\pm 5\%$  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

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,260 lb) Counterweight	
		mm	in	m³	yd³	kg	lb		Reach Boom	HD Reach Boom
								%	R2.9 (9'6")	HD R2.9 (9'6")
<b>Pin-On (No Quick Coupler)</b>										
Utility Duty	B	600	24	0.39	0.51	503	1,108	100	●	●
	B	900	36	0.65	0.84	613	1,351	100	●	●
	B	1200	48	0.95	1.24	733	1,615	100	●	●
General Duty	B	600	24	0.46	0.60	550	1,212	100	●	●
	B	750	30	0.64	0.84	621	1,368	100	●	●
	B	1000	39	0.93	1.22	717	1,580	100	●	●
	B	1050	42	1.00	1.31	737	1,624	100	●	●
	B	1050	42	1.00	1.31	737	1,624	100	●	●
	B	1200	48	1.19	1.56	807	1,778	100	⊙	⊙
	B	1400	55	1.43	1.87	874	1,926	100	X	⊖
	B	1500	60	1.58	2.06	914	2,014	100	X	○
	B	1500	60	1.58	2.06	1094	2,412	100	X	○
Heavy Duty	B	600	24	0.46	0.61	635	1,400	100	●	●
	B	750	30	0.64	0.84	737	1,625	100	●	●
	B	900	36	0.81	1.06	818	1,804	100	●	●
	B	1050	42	1.00	1.31	872	1,923	100	●	●
	B	1200	48	1.19	1.56	929	2,048	100	⊙	⊖
	B	1350	54	1.38	1.81	1036	2,284	100	X	○
	B	1500	60	1.58	2.06	1094	2,412	100	X	○
Cleanup	B	1800	72	1.60	2.09	979	2,157	100	○	○
	B	2000	78	1.76	2.31	1045	2,303	100	○	○
	B	2000	78	1.76	2.31	1045	2,303	100	○	○
Ditch Cleaning Tilt	B	1800	72	1.40	1.83	1105	2,437	100	○	○
Maximum load with pin-on (payload + bucket)								kg	3010	2925
								lb	6,636	6,449

The above loads are in compliance with hydraulic excavator standard EN 474-5:2022/AC:2022, 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)
- 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 Hydraulic Excavator Specifications

## Bucket Specifications and Compatibility *(continued)*

	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,260 lb) Counterweight	
		mm	in	m³	yd³	kg	lb		Reach Boom	HD Reach Boom
								%	R2.9 (9'6")	HD R2.9 (9'6")
<b>With Cat Pin Grabber Coupler</b>										
Utility Duty	B	600	24	0.39	0.51	503	1,108	100	●	●
	B	900	36	0.65	0.84	613	1,351	100	●	●
	B	1200	48	0.95	1.24	733	1,615	100	●	⊙
General Duty	B	600	24	0.46	0.60	550	1,212	100	●	●
	B	750	30	0.64	0.84	621	1,368	100	●	●
	B	1000	39	0.93	1.22	717	1,580	100	●	⊙
	B	1050	42	1.00	1.31	737	1,624	100	⊙	⊙
	B	1050	42	1.00	1.31	737	1,624	100	⊙	⊙
	B	1200	48	1.19	1.56	807	1,778	100	⊖	○
	B	1400	55	1.43	1.87	874	1,926	100	○	○
	B	1500	60	1.58	2.06	914	2,014	100	◇	◇
	B	1500	60	1.58	2.06	1094	2,412	100	◇	◇
Heavy Duty	B	600	24	0.46	0.61	635	1,400	100	●	●
	B	750	30	0.64	0.84	737	1,625	100	●	●
	B	900	36	0.81	1.06	818	1,804	100	●	●
	B	1050	42	1.00	1.31	872	1,923	100	⊙	⊖
	B	1200	48	1.19	1.56	929	2,048	100	⊖	○
	B	1350	54	1.38	1.81	1036	2,284	100	○	◇
	B	1500	60	1.58	2.06	1094	2,412	100	◇	◇
Clean Up	B	1800	72	1.60	2.09	979	2,157	100	◇	◇
	B	2000	78	1.76	2.31	1045	2,303	100	◇	X
	B	2000	78	1.76	2.31	1045	2,303	100	◇	X
Ditch Cleaning Tilt	B	1800	72	1.40	1.83	1105	2,437	100	○	◇
Maximum load with coupler (payload + bucket)								kg	2636	2503
								lb	5,811	5,518
	Linkage	Width		Capacity		Weight		Fill	4.2 mt (9,260 lb) Counterweight	
		mm	in	m³	yd³	kg	lb		Reach Boom	HD Reach Boom
								%	R2.9 (9'6")	HD R2.9 (9'6")
<b>Pin-On, TRS20 S70 (no Hook)</b>										
Heavy Duty - Grading	B	1600	63	1.00	1.31	691	1,523	100	○	○
	B	1800	71	1.10	1.44	758	1,671	100	◇	◇
	B	1150	45	0.90	1.18	778	1,715	100	○	○
	B	1280	49	1.10	1.44	850	1,874	100	◇	◇
	B	600	24	0.55	0.72	460	1,014	100	●	●
Maximum load with pin-on (payload + bucket)								kg	1991	1906
								lb	4,389	4,202

The above loads are in compliance with hydraulic excavator standard EN 474-5:2022/AC:2022, 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.

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.

### 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)
- X Not Recommended

# 320 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		4.2 mt (9,260 lb)	
Boom Type		Reach	HD Reach
Stick Length		R2.9 (9'6")	HD R2.9 (9'6")
Hydraulic Hammers	H115 GC	✓	✓
	H115 GC S	✓	✓
	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 Flat Top	✓	✓
Pulverizers	P218 Secondary Pulverizer	✓	✓
Mulchers	HM4015	✓	✓
	HM4815	✓	✓
Compactors (Vibratory Plate)	CVP110	✓	✓
Rotary Cutters	RC20	✓	✓

### CAT PIN GRABBER COUPLER ATTACHMENTS

Counterweight		4.2 mt (9,260 lb)	
Boom Type		Reach	HD Reach
Stick Length		R2.9 (9'6")	HD R2.9 (9'6")
Hydraulic Hammers	H115 GC	✓	✓
	H115 GC S	✓	✓
	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 Flat Top	✓*	
Pulverizers	P218 Secondary Pulverizer		✓*
Mulchers	HM4015	✓	✓
	HM4815	✓	✓
Compactors (Vibratory Plate)	CVP110	✓	✓
Rotary Cutters	RC20	✓	✓

(continued on next page)

# 320 Hydraulic Excavator Specifications

## Attachments Offering Guide *(continued)*

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%

### TRS20 (PIN-ON TOP / S70 BOTTOM) ATTACHMENTS

Some attachments require more hydraulic flow and are best suited with a machine that has HP2 circuits and a tiltrotator with a high flow swivel. Check the hydraulic capability of your machine and tiltrotator and the requirements of your attachment to ensure a proper match.

#### Counterweight

4.2 mt (9,260 lb)

Boom Type		Reach	HD Reach
Stick Length		R2.9 (9'6")	HD R2.9 (9'6")
Hydraulic Hammers	H115 GC S	✓	✓
	H115 S	✓	✓
	H120 GC S	✓	✓
	H120 S	✓†	✓

**NOTE:** Use hammers on tiltrotators less than 10% of working hours per year or maximum 200 hours per year. Refer to your Operation and Maintenance Manual for recommended hydraulic flow requirements.

# 320 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>BOOM, STICKS AND LINKAGES</b>			<b>CAT TECHNOLOGY</b>		
5.7 m (18'8") Reach boom		✓	Cat Equipment Management:		
5.7 m (18'8") HD Reach boom		✓	– VisionLink™	✓ <sup>1</sup>	
2.9 m (9'6") Reach stick		✓	– Remote Flash	✓	
2.9 m (9'6") HD Reach stick		✓	– Remote Troubleshoot	✓	
Bucket linkage, B1-family with lifting eye	✓		– Work tool recognition and tracking (PL161)	✓	
<b>CAB</b>			– Operator Coaching		✓ <sup>2</sup>
ROPS	✓		Cat Grade:		
OPG		✓	– Cat Grade with 2D	✓	
High-resolution 203 mm (8") LCD touchscreen monitor	✓		– Cat Grade with 2D with Attachment Ready Option (ARO)		✓
High-resolution 254 mm (10") LCD touchscreen monitor		✓	– Laser catcher		✓
Auto bi-level air conditioner	✓		– Cat Grade with 3D (single or dual GNSS)		✓
Jog dial and shortcut keys for monitor control	✓		– Compatible with 3D grade systems from Trimble, Topcon, and Leica	✓	
Keyless push-to-start engine control	✓		– Cat Grade 3D Ready		✓
Height-adjustable console	✓		– Cat Grade Connectivity		✓ <sup>3</sup>
Tilt-up left-side console	✓		Cat Assist:		
Heated air-suspension seat	✓		– Grade Assist	✓	
51 mm (2") seat belt	✓		– Boom Assist	✓	
Monitor integrated Bluetooth® radio with USB/Auxiliary ports	✓		– Bucket Assist	✓	
12V DC outlets	✓		– Swing Assist	✓	
Document storage	✓		– Lift Assist	✓	
Overhead storage and rear storage with nets	✓		Cat Payload:		
Beverage holder	✓		– On-the-go weighing	✓	
Cup holder	✓		– Semiautomatic calibration	✓	
Openable two-piece front window	✓		– Payload/cycle information	✓	
Rear window emergency exit	✓		– VisionLink back office reporting		✓ <sup>3</sup>
Radial wiper with washer	✓		Cat Advanced Payload:		
Openable polycarbonate skylight hatch	✓		– Daily totals		✓
LED dome light	✓		– Custom lists		✓
Floor welcome light	✓		– Smart weight target		✓
Roof sunscreen	✓		– E-ticket Integration		✓ <sup>3</sup>
Roller front sunscreen	✓		Other:		
Roller rear sunscreen		✓	Cat Tiltrotator (TRS) integration		✓
Washable floor mat	✓				
Beacon ready	✓				
Cat Stick Steer		✓			
Auxiliary relay		✓			

<sup>1</sup>Provides core telematics data to manage health, maintenance insights, and condition monitoring. Other plans available for more comprehensive data reporting. Consult your Cat dealer for details.

<sup>2</sup>VisionLink subscription required for back office reporting. Consult your Cat dealer for details.

<sup>3</sup>VisionLink subscription required. Consult your Cat dealer for details.

(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>ELECTRICAL SYSTEM</b>			<b>SAFETY AND SECURITY</b>		
1,000 CCA maintenance-free batteries (×2)	✓		Cat Command (remote control)		✓
Centralized electrical disconnect switch	✓		2D E-Fence:	✓	
Programmable time-delay LED working lights	✓		– E-ceiling		
LED chassis light, left-hand and right-hand boom lights, cab lights	✓		– E-floor		
Premium surround lighting package		✓	– E-swing		
			– E-wall		
			– E-cab avoidance		
<b>ENGINE</b>			Auto hammer stop	✓	
Cat C7.1 single turbo diesel engine	✓		Rearview and right-hand-sideview cameras	✓	
Three selectable power modes	✓		Neutral lever (lock out) for all controls	✓	
Auto engine speed control	✓		Anti-skid plate and countersunk bolts on service platform	✓	
Auto engine idle shutdown	✓		Ground-level accessible secondary engine shutoff switch in cab	✓	
Work up to 3000 m (9,840 ft) above sea level without engine power de-rating	✓		Lockable disconnect switch	✓	
52° C (125° F) high-ambient cooling capacity	✓		Swing alarm		✓
Starting capability for –18° C (0° F) with jump start receptacle	✓		Right-hand handrail and handhold	✓	
Double element air filter with integrated pre-cleaner	✓		Travel alarm	✓	
Electric fuel priming pump	✓		Inspection lighting		✓
Electric cooling fans with auto-reverse function	✓		<b>SERVICE AND MAINTENANCE</b>		
<b>HYDRAULIC SYSTEM</b>			S·O·S <sup>SM</sup> ports	✓	
Boom and stick regeneration circuits	✓		QuickEvac <sup>TM</sup> maintenance ready		✓
Boom and stick lowering check valves	✓		Grouped location for engine oil and fuel filters	✓	
Electronic main control valve	✓		Ground-level second dipstick for engine oil	✓	
Auto Dig Boost	✓		Radiator screen		✓
Auto heavy lift	✓		Integrated vehicle health management system	✓	
Auto warm up	✓		<b>UNDERCARRIAGE AND STRUCTURES</b>		
Auto two-speed travel	✓		600 mm (24") triple grouser track shoes	✓	
Boom and stick drift reduction valve	✓		700 mm (28") triple grouser track shoes		✓
Element type main hydraulic filter	✓		Tie-down points on base frame	✓	
Slider joysticks	✓		Segmented track guiding guards	✓	
Tandem type electronic main pump	✓		Full-length track guiding guards		✓
Hammer return filter circuit		✓	Bottom guards	✓	
Hydraulic efficiency monitoring		✓	HD bottom guards		✓
Tool Control (two pump, one/two way high-pressure flow)		✓	Swivel guard	✓	
Medium pressure auxiliary circuit		✓	Travel motor guards	✓	
Quick coupler circuit for Cat Pin Grabber and CW Dedicated		✓	HD travel motor guards		✓
			Grease lubricated track links	✓	
			4.2 mt (9,260 lb) counterweight	✓	

## Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

### CAB

- Lower radial wiper
- Rain protector plus cab light cover
- Laminated P5A glass front windshield
- Left-hand/Right-hand electrical pedal for tool control
- Armrest kit
- Seat with 4-point seatbelt capability
- Dual exit rear window kit
- 75 mm (3") retractable seat belt
- Auxiliary relay

### ELECTRICAL

- Premium surround working lights

### GUARDS

- Swivel guard
- Side rubber bumper guard
- Operator Protective Guards
- Mesh guard full front
- Mesh guard half front
- Full protecting vandalism guard

### MAINTENANCE

- Jump start wiring
- Duct ready kit

### SAFETY AND SECURITY

- Cat Detect – People Detection
- Cat Command – Remote control kit
- Seat belt indicator
- Bluetooth receiver
- Bluetooth key fob

### OTHER ATTACHMENTS

- Delayed engine shutdown kit
- Upper cover for antennae
- Removable mast for antennae
- Power clam kit
- Grease gun holder



The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

## Engine

- The Cat® C7.1 engine meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels\*\* up to:
  - ✓ 100% biodiesel FAME (fatty acid methyl ester)\*
  - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels
 Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.
 

*\*For use of blends higher than 20% biodiesel, consult your Cat dealer.*

*\*\*Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

## Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg (1.9 lb) of refrigerant which has a CO<sub>2</sub> equivalent of 1.216 metric tonnes (1.340 tons).

## Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - Barium < 0.01%
  - Cadmium < 0.01%
  - Chromium < 0.01%
  - Lead < 0.01%

## Sound Performance

ISO 6395:2008 (external) – 100 dB(A)

ISO 6396:2008 (inside cab) – 70 dB(A)

- External Sound – The spectator sound power level is measured according to the test procedures and conditions specified in ISO 6395:2008 for a Cat machine that is properly equipped and maintained. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Internal Sound – The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in noisy environment(s).

## Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

## Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Advanced hydraulic systems balance power and efficiency
  - Smart mode matches machine power to digging requirements automatically
  - Utilizing Cat technologies can help increase operating efficiencies
  - Extended service intervals help decrease maintenance costs
  - The latest hydraulic oil filter provides longer life with a 3,000-hour replacement interval

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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AEXQ3763-01 (12-2025)  
Replaces: AEXQ3763-00  
Build Number: 07H  
(Aus-NZ)

