



320D3

Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

Table of Contents

Specifications	2
Engine	2
Swing Mechanism	2
Weights	2
Track	2
Drive	2
Hydraulic System	2
Service Refill Capacities	3
Standards	3
Sound Performance	3
Operating Weights and Ground Pressures	3
Major Component Weights	4
Dimensions	5
Working Ranges and Forces	6
HD Reach Boom Lift Capacities:	
Standard Undercarriage	7
Long Undercarriage	8
Bucket Specifications and Compatibility	9
Attachments Offering Guide	9
Standard and Optional Equipment	10
Dealer Installed Kit and Attachments	12

320D3 Hydraulic Excavator Specifications

Engine

Engine Model	ALUW06DTI	
Net Power		
ISO 9249	92 kW	123 hp
ISO 9249 (DIN)	125 hp (metric)	
Engine Power		
ISO 14396	100 kW	134 hp
ISO 14396 (DIN)	136 hp (metric)	
Bore	104 mm	4 in
Stroke	113 mm	4 in
Displacement	5.8 L	351 in ³
Biodiesel Capability	Up to B10	

- Non-certified emission engine.
- Recommended for use up to 4000 m (13,120 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 1,700 rpm.

Swing Mechanism

Swing Speed	11.88 rpm	
Swing Torque	62 kN·m	45,581 lbf·ft

Weights

Operating Weight	20 700 kg	45,600 lb
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- 4.1 m (13'5") Standard undercarriage, 5.7 m (18'8") HD Reach boom, 2.5 m (8'2") HD Reach stick, 1.00 m³ (1.31 yd³) GD bucket, 600 mm (24") triple grouser shoes and 3650 kg (8,050 lb) counterweight.

Operating Weight	21 000 kg	46,300 lb
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- 4.3 m (13'11") Long undercarriage, 5.7 m (18'8") HD Reach boom, 2.5 m (8'2") HD Reach stick, 1.14 m³ (1.49 yd³) GD bucket, 600 mm (24") triple grouser shoes and 3650 kg (8,050 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	5.8 km/h	3.6 mph
Maximum Drawbar Pull	210 kN	47,210 lbf

Hydraulic System

Main System – Maximum Flow – Implement	429 L/min (214.5 L/min × 2 pumps)	113 gal/min (53 gal/min × 2 pumps)
Maximum Pressure – Equipment – Implement	35 000 kPa	5,075 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	25 000 kPa	3,625 psi
Pilot System – Maximum Pressure	4100 kPa	595 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

320D3 Hydraulic Excavator Specifications

Service Refill Capacities

Fuel Tank Capacity	350 L	92.5 gal
Cooling System	19 L	5.0 gal
Engine Oil (with filter)	18 L	4.8 gal
Swing Drive	6 L	1.6 gal
Final Drive (each)	5 L	1.3 gal
Hydraulic System (including tank)	218 L	57.6 gal
Hydraulic Tank	115 L	30.4 gal

Standards

Brakes	ISO 10265:2008
Cab/Rollover Protective Structure (ROPS) (optional)	ISO 12117-2:2008
Cab	ISO 10262:1998 – Level I
Operator Protective Guards (OPG) (optional)	ISO 10262:1998 – Level II

Sound Performance

ISO 6395:2008 (external)	102 dB(A)
ISO 6396:2008 (inside cab)	72 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 Weights and Ground Pressures

	600 mm (24") Wide, 10 mm (0.4") Thick Triple Grouser Shoes	
	Weight kg (lb)	Ground Pressure kPa (psi)
Base machine with 3650 kg (8,050 lb) Counterweight and 4.1 m (13'5") Standard Undercarriage		
5.7 m (18'8") HD Reach boom, 2.5 m (8'2") HD Reach stick, 1.00 m ³ (1.31 yd ³) GD bucket	20 700 (45,600)	47.6 (6.9)
Base machine with 3650 kg (8,050 lb) Counterweight and 4.3 m (13'11") Long Undercarriage		
5.7 m (18'8") HD Reach boom, 2.5 m (8'2") HD Reach stick, 1.14 m ³ (1.49 yd ³) GD bucket	21 000 (46,300)	46.0 (6.7)

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

320D3 Hydraulic Excavator Specifications

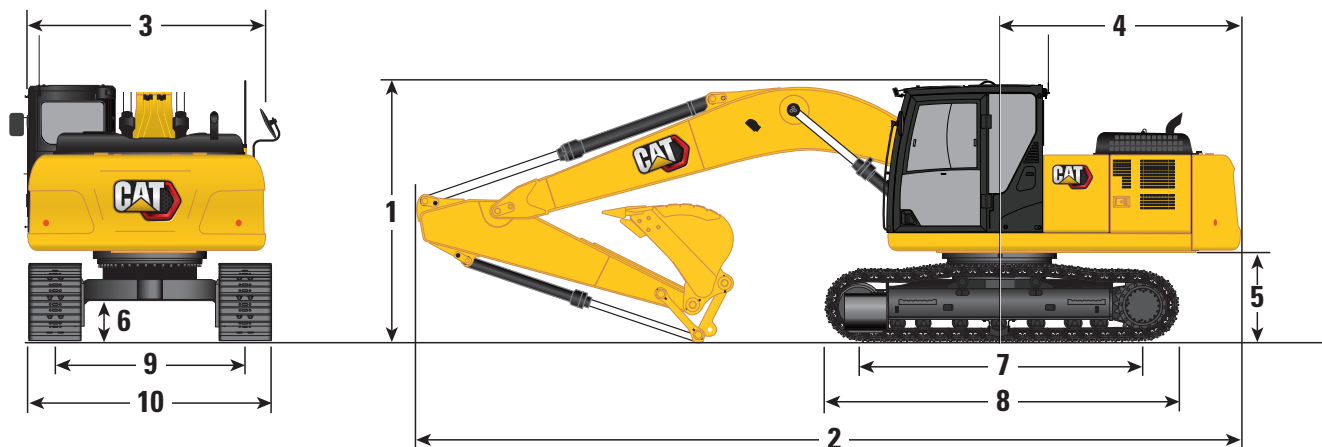
Major Component Weights

	kg	lb
Base machine with 3650 kg (8,050 lb) counterweight, swing frame, base frame with track rollers and carrier rollers for 4.1 m (13'5") standard undercarriage, two boom cylinders, pins, fluids and 75 kg (165 lb) operator	14 540	32,050
Base machine with 3650 kg (8,050 lb) counterweight, swing frame, base frame with track rollers and carrier rollers for 4.3 m (13'11") long undercarriage, two boom cylinders, pins, fluids and 75 kg (165 lb) operator	14 700	32,410
Track Shoes:		
600 mm (24") Width, 10 mm (0.4") Thick, Triple Grouser Track Shoes (45 shoes)	2580	5,690
600 mm (24") Width, 10 mm (0.4") Thick, Triple Grouser Track Shoes (47 shoes)	2700	5,950
Two Boom Cylinders	360	790
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	430	940
Counterweight:		
3650 kg (8,050 lb) Counterweight	3650	8,050
Swing Frame:		
Standard Swing Frame	1870	4,120
Undercarriages:		
Base Frame with Standard Track Rollers and Carrier Rollers for 4.1 m (13'5") Standard Undercarriage	3830	8,450
Base Frame with Standard Track Rollers and Carrier Rollers for 4.3 m (13'11") Long Undercarriage	4000	8,810
Boom (including lines, pins, stick cylinder):		
HD Reach Boom 5.7 m (18'8")	1670	3,690
Stick (including lines, pins, bucket cylinder, bucket linkage):		
HD Reach Stick 2.5 m (8'2")	1080	2,380
Buckets (without linkage):		
1.0 m ³ (1.31 yd ³) GD, with Sidecutter and Tip	820	1,810
1.0 m ³ (1.31 yd ³) HD, with Sidecutter and Tip	930	2,050
1.14 m ³ (1.49 yd ³) GD, with Sidecutter and Tip	880	1,940

320D3 Hydraulic Excavator Specifications

Dimensions

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

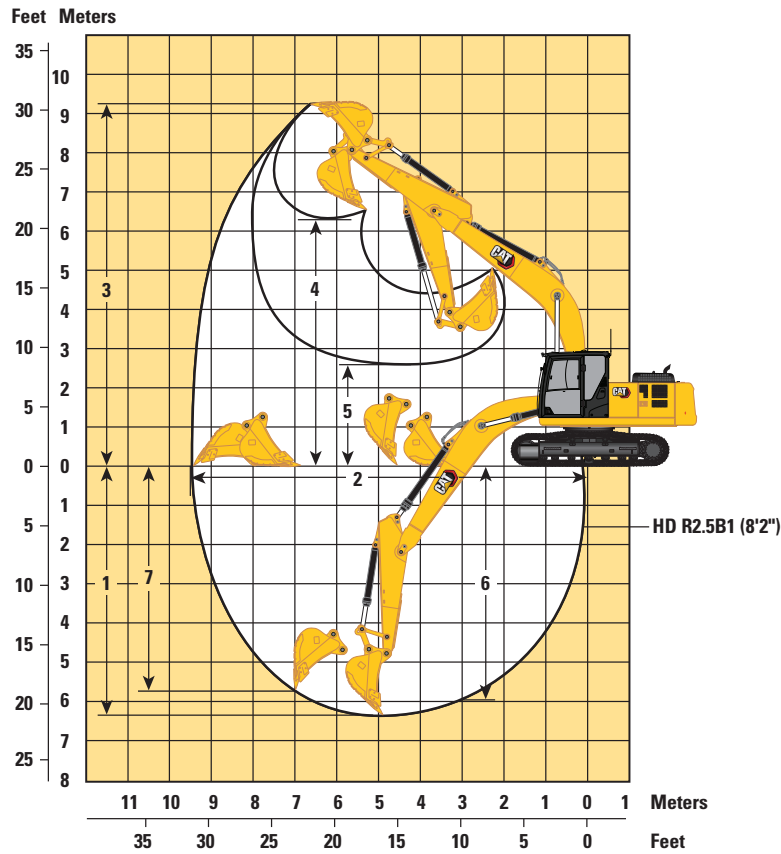


Boom Option	HD Reach Boom 5.7 m (18'8")			
Stick Option	HD Reach Stick 2.5 m (8'2")			
Undercarriage Type	4.1 m (13'5") Standard		4.3 m (13'11") Long	
1 Machine Height:				
Cab Height (including shoe lug height)	2970 mm	9'9"	2970 mm	9'9"
Shipping Height (including shoe lug height)	3050 mm	10'0"	3050 mm	10'0"
Handrail Height	3015 mm	9'11"	3015 mm	9'11"
2 Machine Length with Boom/Stick/Bucket Installed	9530 mm	31'3"	9530 mm	31'3"
3 Upperframe Width	2740 mm	9'0"	2740 mm	9'0"
4 Tail Swing Radius	2750 mm	9'0"	2750 mm	9'0"
5 Counterweight Clearance (without shoe lug height)	1020 mm	3'4"	1020 mm	3'4"
6 Ground Clearance (without shoe lug height)	450 mm	1'6"	450 mm	1'6"
7 Track Length to Center of Rollers	3270 mm	10'9"	3450 mm	11'3"
8 Track Length	4080 mm	13'5"	4250 mm	13'11"
9 Track Gauge	2200 mm	7'3"	2380 mm	7'10"
10 Transport Width – 600 mm (24") Shoes	2800 mm	9'2"	2980 mm	9'9"
Bucket Type	HD		GD	
Bucket Capacity	1.00 m ³	1.31 yd ³	1.14 m ³	1.49 yd ³
Bucket Tip Radius	1488 mm	4'11"	1488 mm	4'11"

320D3 Hydraulic Excavator Specifications

Working Ranges and Forces

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

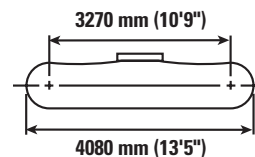
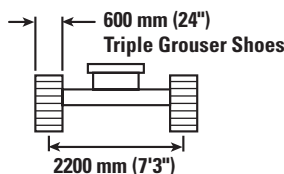
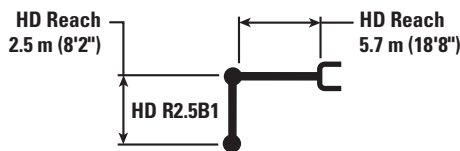


Boom Option	HD Reach Boom 5.7 m (18'8")			
Stick Option	HD Reach Stick 2.5 m (8'2")			
Undercarriage Type	4.1 m (13'5") Standard		4.3 m (13'11") Long	
1 Maximum Digging Depth	6300 mm	20'8"	6300 mm	20'8"
2 Maximum Reach at Ground Line	9470 mm	31'1"	9470 mm	31'1"
3 Maximum Cutting Height	9250 mm	30'4"	9250 mm	30'4"
4 Maximum Loading Height	6290 mm	20'8"	6290 mm	20'8"
5 Minimum Loading Height	2590 mm	8'6"	2590 mm	8'6"
6 Maximum Depth Cut for 2240 mm (8 ft) Level Bottom	5960 mm	19'7"	5960 mm	19'7"
7 Maximum Vertical Wall Digging Depth	5720 mm	18'9"	5720 mm	18'9"
Bucket Digging Force (ISO)	135 kN	30,350 lbf	135 kN	30,350 lbf
Stick Digging Force (ISO)	118 kN	26,530 lbf	118 kN	26,530 lbf
Bucket Type	HD		GD	
Bucket Capacity	1.00 m ³	1.31 yd ³	1.14 m ³	1.49 yd ³
Bucket Tip Radius	1488 mm	4'11"	1488 mm	4'11"

320D3 Hydraulic Excavator Specifications

HD Reach Boom Lift Capacities – without Bucket Linkage

Standard Undercarriage



		3000 mm/10'0"		4500 mm/15'0"		6000 mm/20'0"		7500 mm/25'0"				mm ft/in
7500 mm 25'0"	kg lb									*4500 *10,050	*4500 *10,050	5600 17'11"
6000 mm 20'0"	kg lb					*5350 *11,800	4500 9,600			*4150 *9,100	3600 8,050	6830 22'2"
4500 mm 15'0"	kg lb			*6750 *14,550	6750 14,550	*5800 *12,600	4350 9,350	4400	3050	*4050 *8,900	3000 6,650	7570 24'8"
3000 mm 10'0"	kg lb			*8500 *18,300	6250 13,450	6100 13,100	4150 8,900	4350 9,350	3000 6,400	3950 8,700	2700 5,950	7960 26'0"
1500 mm 5'0"	kg lb			9050 19,500	5800 12,550	5850 12,650	3950 8,450	4250 9,100	2900 6,200	3850 8,400	2600 5,700	8050 26'4"
0 mm 0'0"	kg lb			8850 18,950	5600 12,100	5750 12,300	3800 8,200	4200 9,000	2800 6,050	3900 8,600	2650 5,800	7860 25'9"
-1500 mm -5'0"	kg lb	*10 500 *23,900	*10 500 22,750	8800 18,850	5600 12,000	5700 12,200	3750 8,100			4300 9,450	2900 6,350	7350 24'0"
-3000 mm -10'0"	kg lb	*13 300 *28,750	10 800 23,150	8900 19,100	5650 12,200	5750 12,350	3800 8,250			5200 11,550	3500 7,700	6470 21'0"
-4500 mm -15'0"	kg lb			*7200 *15,050	5900 12,800					*6200 *13,600	5150 11,700	4980 16'0"



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.

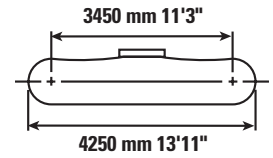
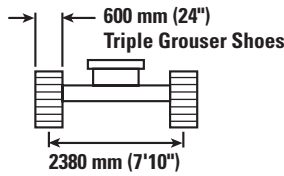
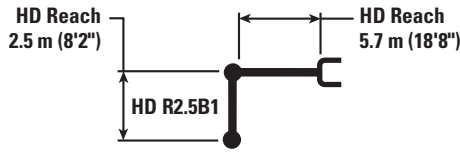
Lift capacity stays with ±5% for all available track shoes.

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

320D3 Hydraulic Excavator Specifications

HD Reach Boom Lift Capacities – without Bucket Linkage

Long Undercarriage



		3000 mm/10'0"		4500 mm/15'0"		6000 mm/20'0"		7500 mm/25'0"				
												mm ft/in
7500 mm 25'0"	kg lb									*4500 *10,000	*4500 *10,000	5600 17'11"
6000 mm 20'0"	kg lb					*5350 *11,800	4900 10,500			*4150 *9,100	3950 8,800	6830 22'2"
4500 mm 15'0"	kg lb			*6750 *14,550	*6750 *14,550	*5800 *12,600	4750 10,250	*4550 3350		*4050 *8,900	3300 7,300	7570 24'8"
3000 mm 10'0"	kg lb			*8500 *18,300	6900 14,900	*6550 14,200	4550 9,800	4700 10,050	3300 7,050	*4150 *9,100	3000 6,550	7960 26'0"
1500 mm 5'0"	kg lb			9950 21,350	6500 13,950	6400 13,700	4350 9,350	4600 9,850	3200 6,850	4150 9,100	2850 6,300	8050 26'4"
0 mm 0'0"	kg lb			9700 20,800	6300 13,500	6200 13,400	4200 9,050	4500 9,700	3100 6,700	4250 9,300	2950 6,450	7860 25'9"
-1500 mm -5'0"	kg lb	*10 500 *23,850	*10 500 *23,850	9650 20,700	6250 13,400	6150 13,250	4150 8,950			4650 10,250	3200 7,050	7350 24'0"
-3000 mm -10'0"	kg lb	*13 300 *28,750	12 300 26,350	*9650 *20,800	6350 13,600	6250 13,450	4250 9,100			5650 12,500	3850 8,550	6470 21'0"
-4500 mm -15'0"	kg lb			*7200 *15,050	6600 14,200					*6200 *13,600	5700 12,950	4980 16'0"



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.

320D3 Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill %	4.1 m (13'5") Standard Undercarriage	4.3 m (13'11") Long Undercarriage
		mm	in	m ³	yd ³	kg	lb		HD Reach Boom	HD Reach Boom
									2.5 m (8'2") HD Reach Stick	2.5 m (8'2") HD Reach Stick
Pin-On (No Quick Coupler)										
General Duty (GD)	B	1250	50	1.00	1.31	758	1,671	100	⊙	
Heavy Duty (HD)	B	1050	42	1.00	1.31	840	1,852	100	⊙	
General Duty (GD)	B	1400	55	1.14	1.50	880	1,940	95		⊙
Maximum load with pin-on (payload + bucket)								kg	2558	2830
								lb	5,639	6,239

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)

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.

Attachments Offering Guide

PIN-ON ATTACHMENTS

Boom Type	HD Reach Boom	
Stick Size	2.5 m (8'2") HD Reach Stick	
Hydraulic Hammers	H120 GCS Top-mount	✓
	120GC Side-mount	✓
	H120Es	✓

320D3 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		
Diesel engine, ALUW06DTI/8 – mechanical governor – emits equivalent to U.S. EPA Tier 2, not-certified	✓		Grease lubricated track link	✓	
Two selectable power modes: Standard and Eco	✓		Tie down points on base frame	✓	
One touch low idle with auto engine speed control (AEC)	✓		Center track guiding guard	✓	
Two stage fuel filtration system with water separator and indicator	✓		Segmented track guiding guard	✓	
4000 m (13,120 ft) altitude capability with derate from 3000 m (9,840 ft)	✓		3650 kg (8,050 lb) counterweight	✓	
52° C (125° F) high ambient cooling capability with derate from 48° C (118° F)	✓		600 mm (24") triple grouser track shoes (10 mm/0.4" thick)	✓	
-32° C (-25° F) cold start capability		✓	4080 mm (13'5") standard undercarriage	✓	
85 amp alternator	✓		4250 mm (13'11") semi-long undercarriage		✓
Radial seal air filter with double filter element	✓		BOOM AND STICK		
Air pre-cleaner		✓	5.7 m (18'8") HD Reach boom	✓	
Fuel flow meter		✓	2.5 m (8'2") HD Reach stick	✓	
Mechanical fuel priming pump	✓		ELECTRICAL SYSTEM		
HYDRAULIC SYSTEM			2 × 750 CCA maintenance free batteries	✓	
Electronic main control valve, hammer ready	✓		Electrical disconnect switch	✓	
Back-to-back electronic pump	✓		LED chassis and cab lights	✓	
Boom and stick regeneration circuits	✓		LED left-side boom light	✓	
Automatic hydraulic warm up	✓		LED right-side boom light		✓
Automatic two-speed travel	✓		<i>(continued on next page)</i>		
Hammer lines		✓			
Hammer return filter		✓			
High performance hydraulic return filter	✓				

320D3 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			CAB		
Engine oil, fuel, and hydraulic oil filters grouped for ease of maintenance	✓		Sound suppressed cab with viscous mounts	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓		High-resolution 203 mm (8") LCD touchscreen monitor	✓	
Radiator screen for radiator/oil cooler to prevent plugging by debris	✓		Mechanically adjustable seat with headrest	✓	
SAFETY AND SECURITY			Automatic bi-level air conditioner	✓	
ROPS		✓	Keyless push-to-start engine control	✓	
Anti-skid plating with countersunk bolts	✓		1-button joystick	✓	
OPG with matching lights		✓	AM/FM radio with USB and auxiliary port	✓	
Handrail and handhold	✓		24V DC outlet	✓	
Lockable external tool/storage box	✓		Cup holder and storage compartments	✓	
Rearview camera		✓	70/30 tempered glass windshield	✓	
Signaling/warning horn	✓		Upper radial wiper with washer	✓	
Hydraulic lockout lever	✓		Openable steel hatch	✓	
Travel alarm		✓	Dome light	✓	
			Washable floor mat	✓	
			CAT TECHNOLOGY		
			VisionLink [®]	✓	

320D3 Hydraulic Excavator Specifications

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB <ul style="list-style-type: none">• Right Hand (RH) Floor pedal for hammer	SAFETY AND SECURITY <ul style="list-style-type: none">• Travel alarm	MAINTENANCE AND IMPROVEMENT <ul style="list-style-type: none">• Fuel flow meter
GUARD <ul style="list-style-type: none">• Front mesh guard	LINES <ul style="list-style-type: none">• Hammer lines	

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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AEXJ0071-04 (11-2023)
Replaces AEXJ0071-03
(India)

