



324

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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324 Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C7.1	
Net Power		
ISO 9249	108 kW	145 hp
ISO 9249 (DIN)	147 hp (metric)	
Engine Power		
ISO 14396	112 kW	150 hp
ISO 14396 (DIN)	152 hp (metric)	
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.1 L	433 in ³
Biodiesel Capability	Up to B20 ⁽¹⁾	

- The 324 meets UN R96 Stage II emission standards, equivalent to U.S. EPA Tier 2 and EU Stage II.
- 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.

⁽¹⁾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	11.5 rpm	
Maximum Swing Torque	61 kN·m	45,260 lbf·ft

Weights

Operating Weight	22 700 kg	50,100 lb
<ul style="list-style-type: none"> • 4.45 m (14'7") Long undercarriage, 5.7 m (18'8") Heavy Duty (HD) Reach boom, HD R2.5 m (8'2") stick, 1.3 m³ (1.7 yd³) Severe Duty (SD) bucket, 600 mm (24") triple grouser shoes and 4550 kg (10,030 lb) counterweight. 		
Operating Weight	22 900 kg	50,600 lb
<ul style="list-style-type: none"> • 4.45 m (14'7") Long undercarriage, 5.7 m (18'8") HD Reach boom, HD R2.5 m (8'2") stick, 1.3 m³ (1.7 yd³) SD bucket, 790 mm (31") triple grouser shoes and 4550 kg (10,030 lb) counterweight. 		

Track

Track Shoes Width	600 mm	24 in
	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

Gradeability	35°/70%	
Maximum Travel Speed	5.7 km/h	3.5 mph
Maximum Drawbar Pull	223 kN	50,222 lbf

Hydraulic System

Main System – Maximum Flow – Implement	416 L/min (208 L/min × 2 pumps)	106 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	3900 kPa	566 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	1425 mm	56 in
Bucket Cylinder – Bore	115 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

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Service Refill Capacities

Fuel Tank Capacity	370 L	97.7 gal
Cooling System	28 L	7.4 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 (external)	102 dB(A)
ISO 6396 (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") Triple Grouser Shoes		790 mm (31") Triple Grouser Shoes	
	Weight kg (lb)	Ground Pressure kPa (psi)	Weight kg (lb)	Ground Pressure kPa (psi)
Base Machine Configurations				
Base Frame with Track Rollers and Carrier Rollers				
Base Machine with 4550 kg (10,030 lb) Counterweight and 4.45 m (14'7") Long Undercarriage				
5.7 m (18'8") HD Reach boom, HD R2.5 m (8'2") stick, 1.3 m³ (1.7 yd³) SD bucket	22 700 (50,100)	47.2 (6.8)	22 900 (50,600)	36.2 (5.2)

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

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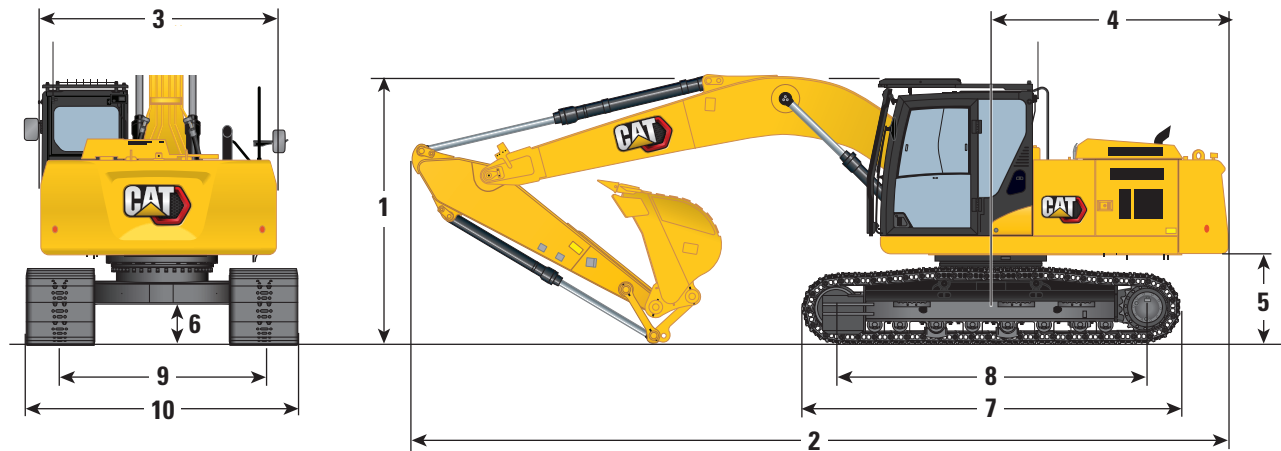
Major Component Weights

	kg	lb
Base Machine Weight (with 4500 kg [10,030 lb] counterweight, 4.45 m [14'7"] Long undercarriage, swing frame, base frame with track rollers and carrier rollers, two boom cylinders, pins, fuel tank and 75 kg (165 lb) operator – does not include boom, stick, bucket, boom cylinders, stick cylinder, bucket cylinder, tracks).	15 370	33,880
Track Shoes:		
600 mm (24") Wide, 12.5 mm (0.5") Thick, Triple Grouser Track Shoes	3140	6,910
790 mm (24") Wide 10 mm (0.4") Thick, Triple Grouser Track Shoes	3360	7,400
Two Boom Cylinders	360	790
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	350	770
Counterweight:		
4500 kg (10,030 lb) Counterweight	4550	10,030
Swing Frame:		
Standard Swing Frame	1930	4,250
Undercarriage:		
Base Frame with Standard Track Rollers and Carrier Rollers for 4.45 m (14'7") Long Undercarriage	4550	10,030
Boom (including lines, pins, stick cylinder):		
5.7 m (18'8") HD Reach Boom	1950	4,290
Stick (including lines, pins, bucket cylinder, bucket linkage):		
R2.5 m (8'2") HD Reach Stick	1140	2,510
Bucket (without linkage):		
1.3 m ³ (1.7 yd ³) SD Bucket	1120	2,480

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Dimensions

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



Boom Option

HD Reach Boom
5.7 m (18'8")

Stick Option

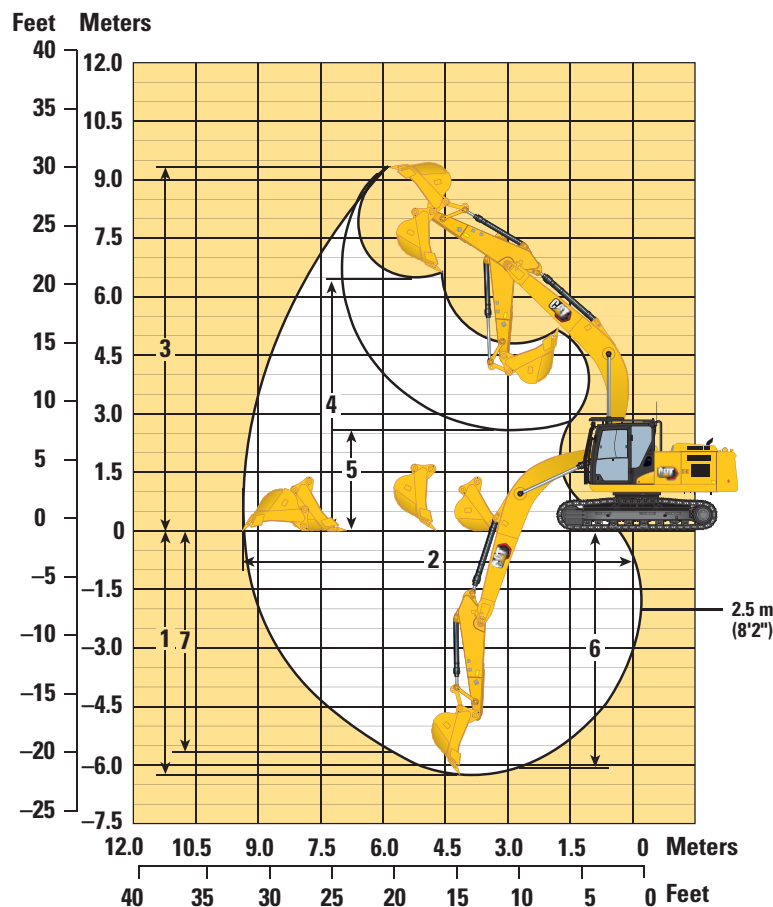
HD Reach Stick
R2.5 m (8'2")

1 Machine Height:		
Cab Height (without shoe lug height)	2950 mm	9'8"
Shipping Height (including shoe lug height)	3360 mm	11'0"
Handrail Height	3020 mm	9'11"
2 Machine Length:		
With Boom/Stick/Bucket Installed	9520 mm	31'3"
3 Upperframe Width	2760 mm	9'1"
4 Tail Swing Radius	2830 mm	9'3"
5 Counterweight Clearance (without shoe lug)	1020 mm	3'4"
6 Ground Clearance (without shoe lug)	440 mm	1'5"
7 Track Length	4450 mm	14'7"
8 Track Length – Length to Center of Rollers	3650 mm	12'0"
9 Track Gauge	2380 mm	7'10"
10 Transportation Width		
600 mm (24") Shoes	2980 mm	9'9"
790 mm (31") Shoes	3170 mm	10'5"
Bucket Type	SD	
Bucket Capacity	1.30 m ³	1.70 yd ³
Bucket Tip Radius	1580 mm	5'2"

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Working Ranges

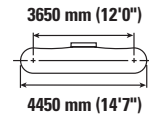
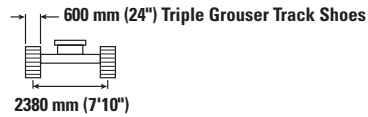
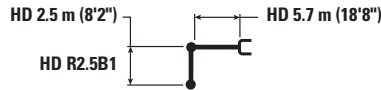
All dimensions are approximate and may vary depending on bucket selection.















Boom Option	HD Reach Boom 5.7 m (18'8")	
Stick Option	HD Reach Stick R2.5 m (8'2")	
1 Maximum Digging Depth	6310 mm	20'8"
2 Maximum Reach at Ground Line	9470 mm	31'1"
3 Maximum Cutting Height	9330 mm	30'7"
4 Maximum Loading Height	6280 mm	20'7"
5 Minimum Loading Height	2590 mm	8'6"
6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	6120 mm	20'1"
7 Maximum Vertical Wall Digging Depth	5620 mm	18'5"
Bucket Digging Force (ISO)	139 kN	31,250 lbf
Stick Digging Force (ISO)	109 kN	24,500 lbf
Bucket Type	SD	
Bucket Capacity	1.30 m ³	1.70 yd ³
Bucket Tip Radius	1580 mm	5'2"

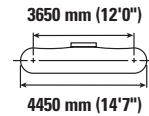
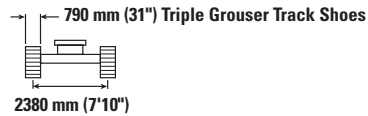
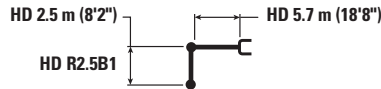
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
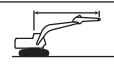










HD Reach Boom Lift Capacities – Counterweight: 4550 kg (10,030 lb) – without Bucket



		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									*4200 *9,350	*4200 *9,350	5630 18'05"
6000 mm 20'0"	kg lb					*5200 *11,400	*5200 *11,400			*3850 *8,450	*3850 *8,450	6850 22'29"
4500 mm 15'0"	kg lb			*6550 *14,150	*6550 *14,150	*5600 *12,200	5350 11,500	*4500	3750	*3750 *8,200	3650 8,100	7590 24'82"
3000 mm 10'0"	kg lb			*8250 *17,750	7750 16,750	*6350 *13,750	5100 11,000	*5500 *11,950	3650 7,850	*3800 *8,350	3300 7,300	7980 26'17"
1500 mm 5'0"	kg lb			*9750 *21,000	7250 15,650	*7100 *15,350	4850 10,500	5500 11,800	3550 7,600	*4050 *8,850	3200 7,000	8080 26'50"
0 mm 0'0"	kg lb			*10 400 *22,450	7050 15,150	7500 16,150	4700 10,150	5400 11,650	3500 7,450	*4500 *9,900	3250 7,150	7880 25'86"
-1500 mm -5'0"	kg lb	*10 400 *23,700	*10 400 *23,700	*10 250 *22,150	7000 15,050	7450 16,000	4650 10,000			*5350 *11,850	3550 7,800	7380 24'17"
-3000 mm -10'0"	kg lb	*12 850 *27,800	*12 850 *27,800	*9300 *20,050	7100 15,250	*6850 *14,650	4750 10,200			*6050 *13,300	4300 9,500	6490 21'18"
-4500 mm -15'0"	kg lb			*6900 *14,400	*6900 *14,400					*5850 *12,800	*5850 *12,800	5020 16'16"

HD Reach Boom Lift Capacities – Counterweight: 4550 kg (10,030 lb) – without Bucket



		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									*4200 *9,350	*4200 *9,350	5630 18'05"
6000 mm 20'0"	kg lb					*5200 *11,400	*5200 *11,400			*3850 *8,450	*3850 *8,450	6850 22'29"
4500 mm 15'0"	kg lb			*6550 *14,150	*6550 *14,150	*5600 *12,200	5450 11,650	*4500	3800	*3750 *8,200	3700 8,200	7590 24'82"
3000 mm 10'0"	kg lb			*8250 *17,750	7900 17,000	*6350 *13,750	5200 11,150	*5500 *11,950	3700 7,950	*3800 *8,350	3350 7,400	7980 26'17"
1500 mm 5'0"	kg lb			*9750 *21,000	7400 15,900	*7100 *15,350	4950 10,650	5600 12,000	3600 7,750	*4050 *8,850	3250 7,100	8080 26'50"
0 mm 0'0"	kg lb			*10 400 *22,450	7150 15,350	*7550 *16,350	4800 10,300	5500 11,850	3550 7,600	*4500 *9,900	3300 7,250	7880 25'86"
-1500 mm -5'0"	kg lb	*10 400 *23,700	*10 400 *23,700	*10 250 *22,150	7100 15,250	7550 16,250	4750 10,200			*5350 *11,850	3600 7,950	7380 24'17"
-3000 mm -10'0"	kg lb	*12 850 *27,800	*12 850 *27,800	*9300 *20,050	7200 15,500	*6850 *14,650	4800 10,350			*6050 *13,300	4350 9,650	6490 21'18"
-4500 mm -15'0"	kg lb			*6900 *14,400	*6900 *14,400					*5850 *12,800	*5850 *12,800	5020 16'16"



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.

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Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	HD Reach Boom
		mm	in	m³	yd³	kg	lb	%	HD R2.5 m (8'2") Stick
Pin-On (No Quick Coupler)									
General Duty	B	1400	45	1.40	1.83	952	2,098	95	⊙
Severe Duty	B	1450	50	1.30	1.70	1065	2,347	95	⊙
Maximum load with pin-on (payload + bucket)								kg	3328
								lb	7,337

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

Not all Attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

☒ Match

PIN-ON ATTACHMENTS

Boom Type	HD Reach Boom
Stick Length	HD R2.5 m (8'2") Stick
Hydraulic Hammers	H120GC S ✓

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			CAB		
Cat C7.1 single turbo diesel engine	✓		Sound suppressed cab with viscous mounts	✓	
Three selectable modes: Power, Smart, Eco	✓		Rollover Protective Structure (ROPS)		✓
One touch low idle with auto engine speed control (AEC)	✓		Operator Protective Guards (OPG)		✓
Two stage fuel filtration system with water separator and indicator	✓		Front windshield guard (wire mesh)		✓
4000 m (13,120 ft) altitude capability with derate from 3000 m (9,840 ft)	✓		Mechanical-suspension seat with headrest and armrest angle adjustment	✓	
52 °C (126 °F) high-ambient cooling capacity with derate above 48 °C (118 °F)	✓		High-resolution 203 mm (8") LCD touchscreen monitor	✓	
-10 °C (14 °F) cold start capability	✓		Keyless push to start engine control	✓	
75 Amp alternator	✓		51 mm (2") orange seat belt	✓	
Radial sealed double element air filter	✓		AM/FM Bluetooth® radio with USB/Auxiliary ports	✓	
Electric fuel priming pump	✓		Auto bi-level air conditioner with pressurized function	✓	
HYDRAULIC SYSTEM			Fixed left-side console	✓	
Electronic main control valve	✓		One-button joysticks	✓	
Hydraulic boom and stick regeneration circuits	✓		24V DC outlet	✓	
Automatic hydraulic warm up	✓		Storage compartments	✓	
Tandem type electronic main pump	✓		Cup holder	✓	
Automatic two speed travel	✓		Coat hook	✓	
High performance hydraulic return filter	✓		Openable skylight	✓	
Hydraulic auxiliary lines (hammer)		✓	Openable tempered front upper windshield	✓	
			Rear window emergency exit	✓	
			Sun visor		✓
			Dome interior lights	✓	
			Washable floor mat	✓	

(continued on next page)

324 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
UNDERCARRIAGE AND STRUCTURES			CAT TECHNOLOGY		
4.45 m (14'7") Long undercarriage	✓		VisionLink™	✓ ¹	
Grease lubricated track link	✓		SERVICE AND MAINTENANCE		
Segmented track guiding guard	✓		Grouped engine oil, fuel, and hydraulic oil filters	✓	
Bottom guard	✓		Scheduled Oil Sampling (S·O·S SM) ports	✓	
Full length track guiding guard		✓	Radiator screen for radiator/oil cooler to prevent plugging by debris	✓	
HD idler		✓	SAFETY AND SECURITY		
4550 kg (10,030 lb) counterweight	✓		Rearview mirrors; handrail mounted (one), cab handhold mounted (one)	✓	
600 mm (24") triple grouser track shoes		✓	Bolt free service platform with anti-skid plate	✓	
790 mm (31") triple grouser track shoes		✓	Neutral lever (lock out) for all controls	✓	
BOOM, STICK AND LINKAGE			Ground level accessible secondary engine shutoff switch in cab	✓	
5.7 m (18'8") HD Reach boom	✓		Handrail and handhold	✓	
2.5 m (8'2") HD Reach stick	✓		Signaling/warning horn	✓	
Bucket linkage, B1 family with lifting eye	✓		Rearview camera		✓
ELECTRICAL SYSTEM			Travel alarm		✓
Two 750 CCA maintenance free batteries	✓				
Centralized electrical disconnect switch	✓				
LED chassis and cab lights	✓				
LED left-side boom light	✓				
LED right-side boom light		✓			

¹Provides 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.

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- Right Hand (RH) Floor pedal for hammer
- Sun visor

GUARDS

- Cabin front windshield mesh guard
- Travel motor rear cover

SAFETY AND SECURITY

- Travel alarm

OTHER ATTACHMENTS

- Rear camera
- Hammer lines kit (R2.5 m [8'2"] stick)
- Track guiding guard kit
- 1.3 m³ (1.70 yd³) SD bucket reinforcement kit
- 1.4 m³ (1.83 yd³) GD bucket reinforcement kit
- Ground Engaging Tools (GET) tip kit
- Adaptor kit

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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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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AEXQ4529-00 (09-2025)
Build Number: 05A
(India)

