



330

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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330 Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C7.1	
Net Power – ISO 9249	194 kW	260 hp
Engine Power – ISO 14396	195 kW	261 hp
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in³
Biodiesel capability	Up to B20 ⁽¹⁾	

- Meets China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 3/EU Stage IIIA.
- Recommended for use up to 4500 m (14,760 ft) altitude with engine power derate above 3000 m (9,840 ft).
- Net power is tested per ISO 9249. Standards 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.
- Rated speed at 2,000 rpm.

⁽¹⁾Cat engines are compatible with the following renewable, alternative, and bio-fuels* with lower greenhouse gas emission impact:

- ✓ Up to B20 biodiesel (FAME)**
- ✓ Up to 100% HVO and GTL renewable fuels

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

** For use of blends up to B100, consult your Cat dealer.

Swing Mechanism

Swing Speed	11.50 rpm	
Maximum Torque	110 kN·m	81,132 lb-ft

Weights

Operating Weight	30 500 kg	67,200 lb
• HD Long undercarriage, HD Reach boom, SD R3.2 m (10'6") stick, HD 1.80 m³ (2.35 yd³) bucket, 600 mm (24") triple grouser shoes and 6.7 mt (14,770 lb) counterweight.		
Operating Weight	31 500 kg	69,400 lb
• HD Long undercarriage, HD Reach boom, SD R3.2 m (10'6") stick, HD 1.80 m³ (2.35 yd³) bucket, 800 mm (31") triple grouser shoes and 6.7 mt (14,770 lb) counterweight.		

Track

Standard Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	800 mm	31 in
Number of Shoes (each side)	50	
Number of Track Rollers (each side)	9	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.3 km/h	3.3 mph
Maximum Drawbar Pull	248 kN	55,753 lbf

Hydraulic System

Main System – Maximum Flow – Implement	560 L/min (280 × 2 pumps)	148 gal/min (74 × 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	35 000 kPa	5,075 psi
Maximum Pressure – Swing	29 800 kPa	4,320 psi
Boom Cylinder – Bore	140 mm	6 in
Boom Cylinder – Stroke	1407 mm	55 in
Stick Cylinder – Bore	150 mm	6 in
Stick Cylinder – Stroke	1646 mm	65 in
Bucket Cylinder – Bore	135 mm	5 in
Bucket Cylinder – Stroke	1156 mm	46 in

Service Refill Capacities

Fuel Tank Capacity	474 L	125.2 gal
Cooling System	25 L	6.6 gal
Engine Oil	25 L	6.6 gal
Swing Drive	10 L	2.6 gal
Final Drive (each)	5.5 L	1.5 gal
Hydraulic System (including tank)	310 L	81.9 gal
Hydraulic Tank	147 L	38.8 gal

Standards

Brakes	ISO 10265:2008
Cab/ROPS	ISO 12117-2:2008
Cab/FOGS (optional)	ISO 10262:1998 Level II

Sound Performance

ISO 6395 (external)	103 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.

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Operating Weights and Ground Pressures

	600 mm (24") Triple Grouser Shoes		600 mm (24") Double Grouser Shoes		800 mm (31") Triple Grouser Shoes	
	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
Base Machine with 6700 kg (14,770 lb) Counterweight and HD Long Undercarriage						
HD Reach Boom + SD R3.2CB2 (10'6") Stick + 1.80 m ³ (2.35 yd ³) HD Bucket	30 500 (67,200)	58 (8.4)	30 800 (67,900)	59 (8.5)	31 500 (69,400)	45 (6.5)

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

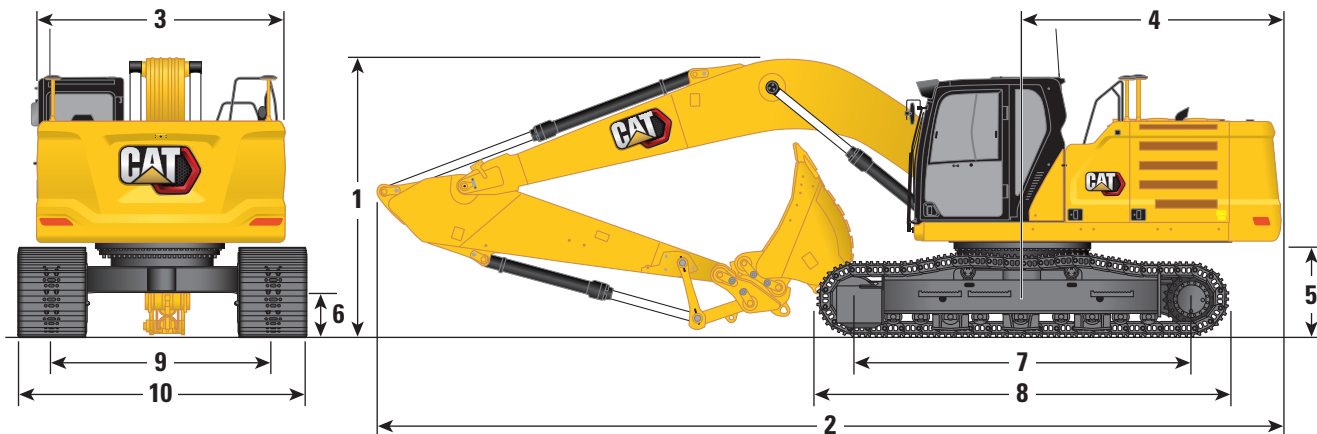
Major Component Weights

	kg	lb
Base Machine Weight with 6700 kg (14,770 lb) counterweight, upper frame, HD long undercarriage with HD track rollers and two boom cylinders – does not include boom, stick, bucket, stick cylinder, bucket cylinders, tracks, fuel tank and operator.	20 900	46,100
Track Shoes:		
600 mm (24") Width, 11 mm (0.43") Thick, Triple Grouser Track Shoes	3620	7,980
600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes	3960	8,730
800 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension for ISO 2867	4590	10,120
Two Boom Cylinders	490	1,080
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	460	1,010
Counterweight:		
6700 kg (14,770 lb) Counterweight	6700	14,770
Undercarriage:		
HD Long Undercarriage with HD Rollers	6700	14,800
Boom (including lines, pins, stick cylinder):		
HD Reach Boom 6.15 m (20'2")	2420	5,340
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
SD Reach Stick R3.2CB2 (10'6")	1660	3,700
SD Reach Stick R2.65CB2 (8'8")	1440	3,200
Buckets (without linkage, with tips and sidecutters):		
1.80 m ³ (2.35 yd ³) HD, CB Linkage	1390	3,100
1.60 m ³ (2.09 yd ³) HD, CB Linkage	1320	2,910
1.54 m ³ (2.01 yd ³) SD, CB Linkage	1500	3,310
Quick Couplers:		
Pin Grabber QC CB with Pins	530	1,170
Pin Grabber QC CB without Pins	500	1,100

330 Hydraulic Excavator Specifications

Dimensions

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



Boom Option

HD Reach Boom
6.15 m (20'2")

Stick Options

SD Reach Stick

R3.2CB2 (10'6")

R2.65CB2 (8'8")

1 Machine Height:

Cab Height	3060 mm	10'0"	3060 mm	10'0"
FOGS Height	3200 mm	10'6"	3200 mm	10'6"
Guardrails/Handrails Height	3060 mm	10'0"	3060 mm	10'0"
With Boom/Stick/Bucket Installed	3400 mm	11'2"	3450 mm	11'4"
With Boom/Stick Installed	3380 mm	11'1"	3380 mm	11'1"
With Boom Installed	3060 mm	10'0"	3060 mm	10'0"

2 Machine Length:

With Boom/Stick/Bucket Installed	10 420 mm	34'2"	10 420 mm	34'2"
With Boom/Stick Installed	10 420 mm	34'2"	10 420 mm	34'2"
With Boom Installed	9230 mm	30'3"	9230 mm	30'3"

3 Upperframe Width without Walkways

2940 mm	9'8"	2940 mm	9'8"
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4 Tail Swing Radius

3130 mm	10'3"	3130 mm	10'3"
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5 Counterweight Clearance

1120 mm	3'8"	1120 mm	3'8"
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6 Ground Clearance

490 mm	1'7"	490 mm	1'7"
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7 Length to Center of Rollers

3990 mm	13'1"	3990 mm	13'1"
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8 Track Length

4860 mm	15'11"	4860 mm	15'11"
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9 Track Gauge

2590 mm	8'6"	2590 mm	8'6"
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10 Undercarriage Width

600 mm (24") Shoes	3190 mm	10'6"	3190 mm	10'6"
800 mm (31") Shoes	3390 mm	11'1"	3390 mm	11'1"

Bucket Type

HD

HD

Bucket Capacity

1.80 m ³	2.35 yd ³	1.80 m ³	2.35 yd ³
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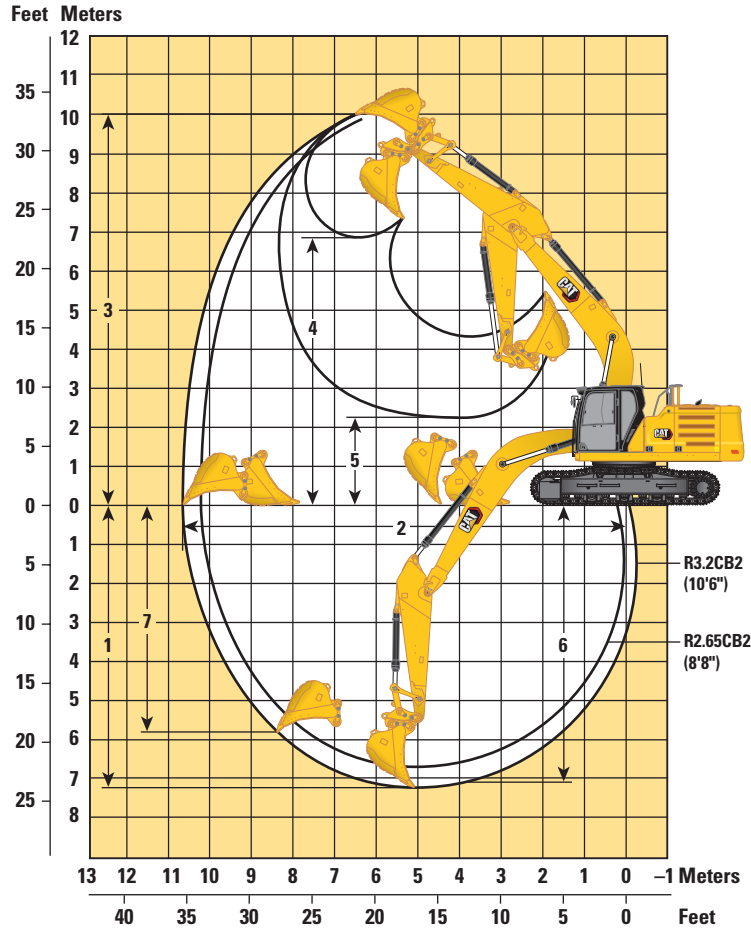
Bucket Tip Radius

1662 mm	5'5"	1662 mm	5'5"
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330 Hydraulic Excavator Specifications

Working Ranges and Forces

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



Boom Option

HD Reach Boom
6.15 m (20'2")

Stick Options

SD Reach Stick

	R3.2CB2 (10'6")		R2.65CB2 (8'8")	
1 Maximum Digging Depth	7250 mm	23'9"	6700 mm	22'0"
2 Maximum Reach at Ground Line	10 690 mm	35'1"	10 210 mm	33'6"
3 Maximum Cutting Height	10 000 mm	32'10"	9890 mm	32'5"
4 Maximum Loading Height	6940 mm	22'9"	6800 mm	22'4"
5 Minimum Loading Height	2290 mm	7'6"	2840 mm	9'4"
6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	7090 mm	23'3"	6520 mm	21'5"
7 Maximum Vertical Wall Digging Depth	5790 mm	19'0"	5490 mm	18'0"
Bucket Digging Force (ISO)*	179 kN	40,240 lbf	179 kN	40,240 lbf
Stick Digging Force (ISO)*	126 kN	28,330 lbf	145 kN	32,600 lbf
Bucket Type	HD		HD	
Bucket Capacity	1.80 m³	2.35 yd³	1.80 m³	2.35 yd³
Bucket Tip Radius	1662 mm	5'5"	1662 mm	5'5"

*8.5% Auto Dig Boost pressure not included.

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Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	6.7 mt (14,770 lb) Counterweight	
		mm	in	m³	yd³	kg	lb		HD Reach Boom	
									SD R3.2CB2 (10'6")	SD R2.65CB2 (8'8")
Pin-On (No Quick Coupler)										
General Duty	CB	1400	55	1.54	2.02	1125	2,480	100	●	●
Heavy Duty	CB	1300	51	1.36	1.78	1173	2,587	100	●	●
	CB	1350	53	1.45	1.90	1194	2,633	100	●	●
	CB	1450	57	1.57	2.05	1280	2,822	100	⊙	●
	CB	1450	57	1.60	2.09	1274	2,809	100	⊙	●
	CB	1500	60	1.65	2.16	1308	2,884	100	⊙	●
	CB	1600	63	1.80	2.35	1348	2,973	100	⊖	⊙
	CB	1650	66	1.90	2.49	1369	3,019	100	⊖	⊙
	CB	1750	69	2.00	2.62	1397	3,081	100	⊖	⊙
Severe Duty	CB	1300	51	1.36	1.78	1321	2,911	90	●	●
	CB	1350	54	1.45	1.90	1346	2,967	90	●	●
	CB	1400	56	1.54	2.02	1421	3,133	90	●	●
Maximum load with pin-on (payload + bucket)								kg	4370	4880
								lb	9,634	10,759
With Pin Grabber Quick Coupler										
General Duty	CB	1400	55	1.54	2.02	1125	2,480	100	⊙	●
Heavy Duty	CB	1300	51	1.36	1.78	1173	2,587	100	⊙	●
	CB	1350	53	1.45	1.90	1194	2,633	100	⊙	●
	CB	1450	57	1.57	2.05	1280	2,822	100	⊖	⊙
	CB	1450	57	1.60	2.09	1274	2,809	100	⊖	⊙
	CB	1500	60	1.65	2.16	1308	2,884	100	⊖	⊙
	CB	1600	63	1.80	2.35	1348	2,973	100	○	⊖
	CB	1650	66	1.90	2.49	1369	3,019	100	○	⊖
	CB	1750	69	2.00	2.62	1397	3,081	100	○	⊖
Severe Duty	CB	1300	51	1.36	1.78	1321	2,911	90	●	●
	CB	1350	54	1.45	1.90	1346	2,967	90	⊙	●
	CB	1400	56	1.54	2.02	1421	3,133	90	⊙	●
Maximum load with coupler (payload + bucket)								kg	3844	4354
								lb	8,474	9,598

The above loads are in compliance with hydraulic excavator standard EN474-5:2006+A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451:2007.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)

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.

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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

PIN-ON ATTACHMENTS

Undercarriage		L	
Counterweight		6.7 mt (14,770 lb)	
Boom Type		Reach HD	
Stick Lengths		SD 2.65 m (8'8")	SD 3.2 m (10'6")
Hydraulic Hammers	H120 S	✓	✓
	H130 GC	✓	✓
	H130 GC Side Mount	✓	✓
	H130 GC S	✓	✓
	H130 S	✓	✓
	H140 GC	✓	✓
	H140 GC S	✓	✓
	H160 GC	✓	✓
	H160 GC S	✓	✓
Compactors (Vibratory Plate)	CVP110	✓	✓

CAT PIN GRABBER COUPLER ATTACHMENTS

Undercarriage		L	
Counterweight		6.7 mt (14,770 lb)	
Boom Type		Reach HD	
Stick Lengths		SD 2.65 m (8'8")	SD 3.2 m (10'6")
Hydraulic Hammers	H120 S	✓	✓
	H130 GC	✓	✓
	H130 GC Side Mount	✓	✓
	H130 GC S	✓	✓
	H130 S	✓	✓
	H140 GC	✓	✓
	H140 GC S	✓	✓*
	H160 GC	✓	✓
	H160 GC S	✓	✓
Compactors (Vibratory Plate)	CVP110	✓	✓

330 Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
CAT TECHNOLOGY			ENGINE		
Cat Product Link™	✓		Three selectable modes: Power, Smart, Eco	✓	
Work tool recognition	✓		Automatic engine speed control	✓	
Work tool tracking*	✓		Auto engine idle-shutdown	✓	
Laser catcher		✓	4500 m (14,760 ft) altitude capability with engine power derate above 3000 m (9,840 ft)	✓	
Cat Grade with 2D and offset memory	✓		52° C (125° F) high-ambient cooling capability with derate	✓	
Cat Grade with Advanced 2D		✓	–18° C (0° F) cold start capability	✓	
Cat Grade with 3D connectivity: – Compatibility with radios and base stations from Trimble, Topcon, and Leica	✓		–32° C (–25° F) cold start capability		✓
– Capability to install 3D grade systems from Trimble, Topcon, and Leica			Cold start block heaters		✓
Cat Assist:	✓		2 × 115 amp dual alternator	✓	
– Grade Assist			Sealed double element air filter with integrated precleaner	✓	
– Boom Assist			Two-stage fuel filtration with water separator and indicator	✓	
– Bucket Assist			Electric fuel priming pump	✓	
– Swing Assist			Electric cooling fans with auto-reverse function	✓	
– Lift Assist			Biodiesel capability up to B20	✓	
Cat Payload:	✓		HYDRAULIC SYSTEM		
– Static weigh			Electronic main control valve	✓	
– Semiautomatic calibration			Electric boom regeneration circuit	✓	
– Payload/cycle information			Stick regeneration circuit	✓	
– USB reporting capability			Automatic hydraulic oil warm up	✓	
2D E-Fence:	✓		Automatic two-speed travel	✓	
– E-ceiling			Boom and stick drift reduction valve	✓	
– E-floor			Auto Dig Boost	✓	
– E-swing			Auto heavy lift	✓	
– E-wall			High performance hydraulic return filter	✓	
– E-cab avoidance			Final drive with bio hydraulic oil capable travel motor	✓	
Auto hammer stop	✓		Hammer return filter circuit		✓
Remote Services capability	✓		Tool Control (two pump, one/two way high-pressure flow)		✓
			Basic Tool Control (one pump, one way high-pressure flow)		✓
			Common Quick Coupler Circuit for Cat Pin Grabber and CW Dedicated		✓

*Paired with PL161 attachment locator.

(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
BOOM, STICKS AND LINKAGE			SERVICE AND MAINTENANCE		
6.15 m (20'2") HD reach boom	✓		Grouped location of engine oil and fuel filters	✓	
3.2 m (10'6") SD reach stick, CB2 Linkage		✓	Ground-level second dipstick for engine oil	✓	
2.65 m (8'8") SD reach stick, CB2 Linkage		✓	Side entry to service platform	✓	
Bucket Linkage, CB2 family, Cat Grade	✓		Scheduled Oil Sampling (S-O-S SM) ports	✓	
UNDERCARRIAGE AND STRUCTURES			Electric refueling pump with automatic shutoff		✓
Full-length track guiding guards		✓	Radiator screen		✓
Segmented track guiding guards		✓	SAFETY AND SECURITY		
Swivel guard		✓	Rearview camera and right-side mirror	✓	
Bottom guard		✓	Right-hand-sideview camera		✓
HD bottom guard		✓	360° Visibility		✓
Travel motor guard		✓	Secure start with PIN code	✓	
HD travel motor guard		✓	Caterpillar One Key security system	✓	
Grease lubricated track	✓		Lockable external tool/storage box	✓	
Swing drive and motor, and swing bearing for higher swing torque	✓		Lockable door, fuel, and hydraulic tank locks	✓	
HD base frame with HD rollers	✓		Lockable fuel drain compartment	✓	
Tie-down points on base frame	✓		Service platform with anti-skid plate and recessed bolts	✓	
6700 kg (14,770 lb) counterweight	✓		RH handrail and hand hold (ISO 2867 compliant)	✓	
600 mm (24") triple grouser track shoes		✓	Signaling/warning horn	✓	
600 mm (24") double grouser track shoes		✓	Ground-level secondary engine shutoff switch in cab	✓	
800 mm (31") triple grouser track shoes		✓	Hydraulic lock out lever that neutralizes all controls	✓	
ELECTRICAL SYSTEM			Travel alarm		✓
Maintenance-free 1,000 CCA batteries (×2)	✓				
Programmable time-delay LED working lights	✓				
Centralized electrical disconnect switch	✓				
LED chassis light, LH and RH boom lights, cab lights	✓				
Premium surround lighting package		✓			

Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- RH electrical pedal (two-way) for tool control
- Radial lower wiper for two piece (70/30) windshield, with washer
- Polycarbonate skylight hatch (for comfort cab only)
- Rain protector plus cab light cover

SAFETY AND SECURITY

- Bluetooth® key fob

GUARDS

- Side rubber bumper guard
- Falling object guard system (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

SERVICE AND MAINTENANCE

- Grease gun holder

Cab Options

	Comfort	Deluxe
ROPS, standard sound suppression	●	●
High-resolution 203 mm (8") LCD touchscreen monitor	●	●
High-resolution 254 mm (10") LCD touchscreen monitor	○	○
High-resolution 203 mm (8") LCD touchscreen monitor + additional monitor (only for use with Cat Grade with Advanced 2D or Cat Grade with 3D)	○	○
High-resolution 254 mm (10") LCD touchscreen monitor + additional monitor (only for use with 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, three steps with tool	●	X
Height-adjustable console, infinite with no tool	X	●
Fixed left-side console	●	X
Tilt-up left-side console	X	●
Cat Stick Steer	○	○
Mechanically adjustable seat suspension	●	X
Heated seat with air-adjustable suspension	X	●
51 mm (2") seat belt	●	●
Bluetooth integrated radio with USB ports	●	●
12V DC outlets	●	●
Document storage	●	●
Rear head storage net and lunchbox storage net	X	●
Cup and bottle holders	●	●
Openable two-piece front window	●	●
Upper radial wiper with washer	●	●
Openable steel hatch	●	X
Openable polycarbonate skylight hatch	X	●
LED dome lights	●	●
Floor welcome light	●	●
Roller front sunscreen	●	●
Roller rear sunscreen	○	○
Rear window emergency exit	●	●
Washable floor mat	●	●
Beacon ready	●	●

● Standard

○ Optional

X Not Available

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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AEXJ0077-04 (08-2021)
Replaces AEXJ0077-03
Build Number: 07D
(China)

