



Cat[®] 349

Hydraulic Excavator

The Cat[®] 349 excavator brings premium performance with a variety of Cat attachments and simple-to-use technologies like Cat GRADE with 2D, Grade Assist, and Payload – all standard equipment from the factory to boost your operator efficiencies up to 45 percent. Combine these with standard safety features like E-Fence and all-new ROPS cab, longer maintenance intervals that lower your maintenance costs up to 15 percent, and a power system that improves fuel efficiency up to 25 percent and you have a low-cost-per-unit-of-production excavator that's perfect for your applications.

Not all features available in all regions. Consult your Cat dealer for specific configurations available in your region.

High Performance with Lower Fuel Consumption

- Increase operating efficiency up to 45 percent with standard Cat technologies that lower operator fatigue and operating costs, including fuel consumption and daily maintenance.
- Get up to 25 percent higher fuel efficiency – more work per unit of fuel – than the Cat 349D2 excavator.
- The C13 engine meets Brazil MAR-1 and China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Match the excavator to the job with three power modes – Power, Smart, and Eco. Smart mode automatically matches engine and hydraulic power to digging conditions, providing max power when needed and reducing power when it isn't to help save fuel.
- The new high-efficiency hydraulic fan cools the engine on demand to help reduce fuel consumption; available reverse function makes it easy to keep cores clean.
- New self-sharpening Advansys™ bucket tips increase production and lower costs.
- Auxiliary hydraulic options give you the versatility to use a wide range of Cat attachments.
- Don't let the temperature stop you from working. This excavator has a high-ambient capability of 52° C (125° F) and cold start capability of -18° C (0° F).

Boost Efficiency and Productivity with Integrated Cat Technologies

- Boost productivity up to 45 percent versus traditional grading with standard Cat GRADE with 2D system – includes indicate-only and laser capability.
- Standard Grade Assist: Stay on grade – simply and effortlessly – with single-lever digging.
- Set your desired bucket angle and let Bucket Assist automatically maintain the angle in sloping, leveling, fine grading, and trenching applications.
- Keep the tracks on ground in lifting and hard digging with Boom Assist.
- Automatically stop excavator swing at operator-defined set points in truck loading and trenching applications with Swing Assist, which will help you use less effort and consume less fuel.
- Standard Cat PAYLOAD on-board weighing system: Achieve precise load targets and increase loading efficiency with on-the-go weighing and real-time estimates of your payload without swinging.
- Combine Payload with VisionLink[®] and remotely manage your production targets.
- Upgrade to optional Cat GRADE with Advanced 2D: Create and edit grade designs with ease on a second high-resolution 254 mm (10 in) touchscreen monitor.
- Upgrade to optional Cat GRADE with 3D: Create and edit designs with ease and see the front linkage's full range of motion on a second high-resolution 254 mm (10 in) touchscreen monitor.



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- Know the excavator's exact position relative to GPS and GLONASS systems. The machine automatically compensates for excavator pitch and roll caused by sloping ground conditions.
- Remote Troubleshoot connects you to a dealer service pro to help solve your problem and quickly get you to work.
- Remote Flash works around your schedule to ensure your machine's software is up to date for optimal performance.
- The Cat App helps you manage fleet location, hours, and maintenance schedules; it also alerts you for required maintenance and even allows you to request service from your local Cat dealer.
- Standard Product Link™ provides location, machine hours, fuel usage, productivity, idle time, diagnostic codes, and other machine data on demand through VisionLink online interface, helping you improve job site efficiency with lower operating costs.
- The Cat attachment locator can help you find tools, track work time, and plan maintenance and replacement – all through your Cat App equipped smartphone.

Work in Comfort in the All-New Cab

- Choose between Comfort and Deluxe cabs – both with automatic climate control.
- Sit in wide seats that adjust for all size operators; stay warm with the Deluxe heated seat.
- Get in and out of the cab easier using the tip-up left console (Deluxe cab only).
- Advanced viscous mounts reduce cab vibration up to 50 percent over previous excavator models.
- Control the excavator comfortably with easy-to-reach controls all located in front of you.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, overhead, and in the consoles.
- Use the standard radio's USB ports and Bluetooth® technology to connect personal devices and make hands-free calls.

Simple to Operate

- Start the engine with a push button; use a Bluetooth key fob, smartphone app, or the unique Operator ID function.
- Program each joystick button, including power mode, response, and pattern, using Operator ID; the machine will remember what you set each time you go to work.
- Automatic hydraulic oil warm up gets you to work faster in cold temperatures and helps prolong the life of components.
- Navigate quickly on the high-resolution touchscreen monitor or with the aid of the jog dial control.
- A second 254 mm (10 in) monitor is available for the Cat GRADE with Advanced 2D and Cat GRADE with 3D.
- Not sure how a function works or how to maintain the excavator? Always have the operator's manual at your fingertips in the touchscreen monitor.

Maintenance

- Expect up to 15 percent less maintenance cost than the 349D2 due to extended service intervals. (Savings calculated over 12,000 machine hours.)
- Check hydraulic system oil and easily drain fuel system water and fuel tank water from ground level.
- Track your excavator's filter life and maintenance intervals via the in-cab monitor.
- Change all fuel filters at a synchronized 1,000 hours. Oil and fuel filters grouped and located on right-hand side of machine for easy maintenance.
- The new air intake filter with pre-cleaner has double the dust holding capacity of the previous air intake filter.
- The new hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced, and longer life with a 3,000 hour replacement interval – 50 percent longer than previous filter designs.
- The new high-efficiency hydraulic fan has an optional automatic reverse function to keep cores free from debris, eliminating the need for any operator interaction.
- S-O-SSM ports simplify maintenance and allow for quick, easy extraction of fluid samples for analysis.

Safety

- Standard 2D E-Fence integrated right out of the factory prevents the excavator from moving outside of operator-defined set points.
- Lift Assist helps you avoid tipping by letting you know if your load is within the excavator's safe working range limits.
- The standard ROPS cab meets ISO 12117-2:2008 requirements.
- A travel direction indicator helps operators know which way to activate the travel levers.
- Enjoy great visibility into the trench, in each swing direction, and behind you with the help of smaller cab pillars, larger windows, and a flat engine hood design.
- A ground-level shutoff switch stops all fuel to the engine when activated and shuts down the machine.
- A rearview camera is standard. Upgrade to 360° visibility and you'll easily visualize objects and personnel around the excavator in a single view.
- Serrated steps and anti-skid punch plate on the service platform help prevent slipping.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
CAB			BOOMS AND STICKS		
ROPS, sound suppression	✓		6.9 m (22'8") Reach boom		✓
High-resolution touchscreen monitor	✓		6.55 m (21'6") Mass boom		✓
Heated seat with air-adjustable suspension (Deluxe only)	✓		3.9 m (12'10") stick		✓
Heated and cooled seat with automatic adjustable suspension (Premium only)	✓		3.35 m (11'0") stick		✓
			3.0 m (9'10") stick		✓
			2.9 m (9'6") stick		✓
			2.5 m (8'2") stick		✓
ENGINE			ELECTRICAL SYSTEM		
Cold start block heaters		✓	Maintenance-free 1,000 CCA batteries (×4)	✓	
Three selectable modes: Power, Smart, Eco	✓		Centralized electrical disconnect switch	✓	
Automatic engine speed control	✓		LED lights	✓	
Up to 4500 m (14,760 ft) altitude capability	✓		CAT TECHNOLOGY		
52° C (126° F) high-ambient cooling	✓		Cat Product Link	✓	
Hydraulic reverse fan		✓	Cat GRADE with 2D	✓	
-18° C (0° F) cold start capability	✓		Cat GRADE with Advanced 2D		✓
-32° C (-25° F) cold start capability		✓	Cat GRADE with 3D		✓
Double element air filter with integrated precleaner	✓		Cat GRADE with Assist	✓	
Remote disable	✓		Cat PAYLOAD	✓	
Biodiesel capability up to B20	✓		E-Fence	✓	
			Lift Assist	✓	
HYDRAULIC SYSTEM			Remote Services capability	✓	
Boom and stick regeneration circuit	✓		SERVICE AND MAINTENANCE		
Electronic main control valve	✓		Grouped location of engine oil and fuel filters	✓	
Heavy lift mode	✓*		Scheduled Oil Sampling (S-O-S) ports	✓	
Automatic hydraulic oil warm up	✓		QuickEvac™ maintenance ready		✓
Automatic swing parking brake	✓		Electric refueling pump with auto shutoff		✓
High performance hydraulic return filter	✓		SAFETY AND SECURITY		
Two speed travel	✓		Caterpillar One Key security system	✓	
Bio hydraulic oil capability	✓		Lockable external tool/storage box	✓	
Combined two-way auxiliary circuit		✓	Lockable door, fuel, and hydraulic tank locks	✓	
Medium-pressure auxiliary circuit		✓	Lockable fuel drain compartment	✓	
Quick coupler circuit		✓	Service platform with anti-skid plate and recessed bolts	✓	
UNDERCARRIAGE AND STRUCTURES			Rearview camera	✓	
Long undercarriage	✓		360° visibility		✓
Towing eye on base frame	✓				
9.0 mt (19,842 lb) counterweight	✓				
600 mm (24") double grouser, HD double grouser, triple grouser track shoes		✓			
750 mm (30") double grouser, triple grouser track shoes		✓			
900 mm (35") triple grouser track shoes		✓			

*Except Turkey.

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Technical Specifications

Engine		
Engine Model	C13	
Net Power – ISO 9249/SAE J1349	302 kW	405 hp
Gross Power – ISO 14396	303 kW	406 hp
Engine rpm		
Operation	1,650 rpm	
Travel	1,800 rpm	
Bore	130 mm	5 in
Stroke	157 mm	6 in
Displacement	12.5 L	763 in³

Hydraulic System		
Main System – Maximum Flow – Implement	779 L/min (389 × 2 pumps)	206 gal/min (103 × 2 pumps)
Maximum Pressure – Equipment – Implement	35 000 kPa	5,076 psi
Maximum Pressure – Equipment – Lift Mode	38 000 kPa	5,511 psi
Maximum Pressure – Travel	26 000 kPa	3,771 psi
Maximum Pressure – Swing	35 000 kPa	5,076 psi

Swing Mechanism		
Swing Speed	8.44 rpm	
Maximum Swing Torque	187 kN·m	138,000 lbf·ft

Weights		
Operating Weight	48 100 kg	106,000 lb
<ul style="list-style-type: none"> • Long undercarriage, Reach boom, R3.35TB (11'0") stick, SD 2.41 m³ (3.15 yd³) bucket, 600 mm (24") double grouser shoes, 9.0 mt (19,842 lb) counterweight. 		

Service Refill Capacities		
Fuel Tank Capacity	715 L	188.9 gal
Cooling System	52 L	13.7 gal
Engine Oil (with filter)	40 L	10.6 gal
Swing Drive (each)	40 L	10.6 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic System (including tank)	550 L	145.3 gal
Hydraulic Tank	217 L	57.3 gal

Dimensions		
Boom	Reach Boom 6.9 m (22'8")	
Stick	Reach Stick 3.35 m (11'0")	
Bucket	SD 2.41 m³ (3.15 yd³)	
Shipping Height (top of cab)	3230 mm	10.6 ft
Handrail Height	3370 mm	11.1 ft
Shipping Length (boom, stick, and bucket installed)	11 920 mm	39.1 ft
Tail Swing Radius	3760 mm	12.3 ft
Counterweight Clearance	1280 mm	4.2 ft
Ground Clearance	475 mm	1.6 ft
Track Length	5370 mm	17.6 ft
Length to Center of Rollers	4360 mm	14.3 ft
Track Gauge – Long Undercarriage	2740 mm	9.0 ft
Transport Width – 600 mm (24") Shoes	3340 mm	11.0 ft

Working Ranges and Forces		
Boom	Reach Boom 6.9 m (22'8")	
Stick	Reach Stick 3.35 m (11'0")	
Bucket	SD 2.41 m³ (3.15 yd³)	
Maximum Digging Depth	7700 mm	25.3 ft
Maximum Reach at Ground Level	11 770 mm	38.6 ft
Maximum Cutting Height	10 730 mm	35.2 ft
Maximum Loading Height	7390 mm	24.2 ft
Minimum Loading Height	2710 mm	8.9 ft
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6950 mm	22.8 ft
Maximum Vertical Wall Digging Depth	5440 mm	17.8 ft
Bucket Digging Force (SAE)	229 kN	51,480 lbf
Bucket Digging Force (ISO)	271 kN	60,850 lbf
Stick Digging Force (SAE)	193 kN	43,480 lbf
Stick Digging Force (ISO)	202 kN	45,350 lbf



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AEXQ2521-01 (07-2019)
Replaces AEXQ2521
Build Number: 07A
(AME, CIS, China, SE Asia,
South America, Turkey)

