321

HYDRAULIC EXCAVATOR

Engine Power	
ISO 14396	100 kW (134 hp)
ISO 14396 (DIN)	136 hp (metric)
Operating Weight	19 700 kg (43,500 lb)

CAT®

MEET THE CAT® 321

FUEL EFFICIENT. ALL-PURPOSE PERFORMER.

Powered by the reliable Cat® C3.6 engine, the 321 delivers high torque and fast cycle times to keep productivity high. Reinforced Cat structures extend machine life and withstand demanding conditions, while the latest cab design prioritizes operator safety and comfort above all else. Every core system is rigorously tested, ensuring consistent and reliable performance shift after shift.

CAT EXCAVATORS

Cat excavators offer you more value than ever.

+ RELIABLE
+ LOW FUEL CONSUMPTION
+ LOW OPERATING COSTS

If you're ready to take your business to the next level, put Cat excavators to work for you.

FUEL EFFICIENT
ALL-PURPOSE PERFORMER

PERFORMANCE
YOU CAN FEEL

The reliable Cat C3.6 engine delivers high torque and fast cycle times for maximum productivity. Its integrated engine control module (ECM) ensures smooth, precise operation, while the advanced electrohydraulic (EH) system intelligently manages fuel use, optimizing efficiency without sacrificing digging power or controllability.

BUILT
TO LAST

Reinforced Cat structures are engineered to take on the toughest applications, delivering exceptional durability and extended machine life in harsh conditions. Two robust undercarriage options provide superior stability and long-lasting performance on rugged terrain. Every system is tested and proven to deliver dependable results, day after day, shift after shift, no matter the job.

LESS DOWNTIME.
LOW COSTS.

Extended and synchronized service intervals help you stay on the job longer and reduce overall maintenance costs. Shared Cat components make servicing easier and improve parts availability, especially across mixed fleets, keeping your operations running efficiently. Inside, the latest cab design enhances visibility, control, and comfort, helping operators perform at their best through every shift.

PRECISE CONTROL WITH LESS FUEL BURN

Get more done with less fuel. The Cat C3.6 engine, advanced electrohydraulic system, and intelligent controls work together to deliver powerful, efficient performance. Every system is fine-tuned to reduce fuel burn, cut operating costs, and help you move more material in less time, without compromising on digging or lifting capability.

WORK SMART

Engine power and electrohydraulic precision are perfectly synchronized to maximize productivity. Eco Mode helps you lower fuel use without sacrificing performance, while adaptive engine controls and the Intelligent ECM provide smooth, consistent responsiveness through every cut, swing, and load.

BUILT-IN EFFICIENCY

Automatic Engine Control reduces engine speed during idle, saving fuel whenever the machine pauses. Boom and stick regeneration circuits further improve cycle times and controllability, delivering faster, smoother performance. A durable, multi-stage fuel filtration system protects against contaminants to keep your excavator running cleaner and longer.

SAVE MONEY. KEEP MOVING.

Shift after shift, your Cat excavator delivers the efficiency, reliability, and versatility that keep your business moving forward. Lower fuel costs, less downtime, and proven Cat durability add up to stronger performance and more profit potential, built into every machine.

SAFETY FIRST, ALWAYS

LOOK OUT FOR YOUR PEOPLE AND EQUIPMENT

SAFETY
BUILT IN

On a busy jobsite, safety isn't optional, it's built into the 321. Clear sightlines, standard mirrors, and an optional rearview camera boost confidence in tight spaces. An optional front windshield guard adds protection from rocks, debris, and other unexpected hazards.

STABLE,
SECURE DESIGN

A heavy-duty base frame and reinforced "X" car body deliver stability that meets ISO 15818:2017 lifting and tie-down standards, while serrated steps, anti-skid plating, and compliant handrails help prevent slips and falls. Ground-level service points keep daily checks quick and safe, while a lockable battery disconnect switch ensures secure servicing.

PROTECTION
AROUND THE CLOCK

Bright LED lights illuminate the jobsite, while a quiet muffler and reinforced cab create a safe, more comfortable environment. Wide entry doors, bright seatbelts, emergency exits, and an optional travel alarm keep operators visible, supported, and confident every second of every shift.

1,000 WAYS TO STAY SAFE.

FACT: SLIPPING IS ONE OF THE **BIGGEST CONTRIBUTORS** TO WORKPLACE INJURIES.*

OUR ANTI-SKID PLATES FEATURE

1,000+ INDIVIDUAL PERFORATIONS FOR BETTER TRACTION

*SOURCE: HTTPS://WWW.OSHA.GOV/DTE/GRANT_MATERIALS/FY07/SH-16625-07/SLIPSTRIPSFALLS.PPT

BUILT TO LAST

DURABILITY YOU CAN COUNT ON SHIFT AFTER SHIFT

BUILT TO ENDURE

From reinforced frames to proven components, every detail of the Cat 321 is engineered to withstand the toughest conditions while keeping you productive.

DURABILITY YOU CAN COUNT ON

Heavy-duty Cat structures, including the rugged X-structure lower frames, extend machine life, even in the harshest applications. Sloped track frames and steep-angle guards shed debris efficiently, while the guiding guards keep tracks aligned when working on uneven terrain.

PROVEN CAT ENGINEERING

Built on classic, field-tested Cat components, every boom and stick is robotically welded for maximum structural integrity. Hydraulic lines are routed inside the frame to protect against damage, and the single-plane cooling package enhances airflow for better, longer-lasting performance.

INVESTED IN YOUR SUCCESS

With Cat, you're not just buying an excavator, you're investing in a machine built to go the distance. Every detail is designed to protect your uptime, reduce repair costs, and lower your total cost of ownership over the life of the machine.

POWER AND PRECISION IN EVERY PASS

Select from General Duty or Heavy Duty bucket options to match application needs, from efficient earthmoving to demanding work.

ENGINEERED FOR EVERY ENVIRONMENT

Auto warm-up safeguards key components during cold starts, while Smart Mode automatically adjusts power to match job conditions for maximum fuel efficiency and control.

DESIGNED TO DELIVER

Choose between stick lengths to balance lifting power or extended reach for maximum payloads, helping meet the harsh demands of your jobsites.

STABLE SYSTEMS

Every system, from hydraulics to cooling, is tested to perform in the most demanding environments, keeping your operation moving forward with confidence.

MORE UPTIME
KEEP YOUR MACHINE RUNNING STRONG

With longer service intervals, easier access, and built-in protective systems, the Cat 321 keeps you productive every day. Fewer interruptions mean more time spent doing what matters: moving material, meeting deadlines, and maximizing return on every hour worked.

SMART FILTER DESIGN

Grouped fuel, engine-air, and oil filters are positioned for quick, simple replacement. Advanced hydraulic oil filters extend system life and eliminate the need for pilot and case-drain filters, reducing service time and cost.

CLEANER FUELING SYSTEM

An electric priming pump prevents contamination and removes the need for manual priming after filter changes. A two-stage fuel filter and anti-rust fuel tank defend against low-quality fuel, protecting your investment from the inside out.

DUST DEFENSE

The latest pre-cleaner air-intake system offers twice the dust-holding capacity of the previous design. The radial-seal engine-air filter is automatically monitored through the in-cab display, helping operators stay aware and ahead of maintenance.

EASY TO SERVICE. HARD TO BEAT.

SAVE ON SERVICE AND MAINTENANCE

Every minute on the jobsite matters. That's why the Cat 321 is designed for easy service, extended intervals, and integrated systems that keep you working longer and spending less on downtime.

SAFE, SIMPLE ACCESS

A large service platform with anti-skid plating, countersunk bolts, and ergonomic handgrips makes moving around the machine secure and confident – even in wet or muddy conditions.

GROUND-LEVEL CONVENIENCE

S·O·S℠ ports positioned at ground level make it quick and easy to take fluid samples for precise, time-saving analysis – so potential issues can be identified before they become costly problems.

EXTENDED INTERVALS

Synchronized 500-hour oil-change and service intervals, paired with maintenance-free batteries, help you spend less time in the shop and more time in the dirt.

SIMPLE TO OPERATE
BUILT-IN PRODUCTIVITY AND PRECISION

SMARTER STARTS,
FASTER WORK

Start your day with confidence. Push-button engine start and a high-resolution touchscreen monitor make operation quick, simple, and intuitive. Every function is easy to reach and easy to learn, so operators can get to work faster and stay efficient all day long.

SMOOTH AND ACCURATE
CONTROL

The advanced electrohydraulic system delivers the precision you need for fine trenching, lifting, and finishing work. Low-effort joysticks reduce fatigue on long shifts, while customizable joystick patterns and saved operator preferences make every seat feel like your own.

LONG LIFE,
LESS WEAR

Auto hammer stop prevents tool damage from overheating or overuse, while intuitive controls and an operator-friendly layout help keep crews productive, focused, and comfortable through every task.

SUPPORT
FOR LONG SHIFTS

The Cat 321's quiet, spacious cab is designed to help operators stay sharp and productive all day long. From seating to sight lines, every detail is engineered to reduce fatigue, improve focus, and create a work environment that performs as hard as you do.

STAY ALERT,
STAY COMFORTABLE

An adjustable, high-back seat, advanced sound suppression, and viscous cab mounts minimize noise and vibration – keeping the operator comfortable even in rugged conditions. Automatic climate control with five strategically placed vents maintains the ideal temperature year-round, no matter the weather outside.

CONVENIENCE
MEETS SAFETY

Bluetooth® connectivity, USB ports, and practical storage solutions keep operators connected and organized throughout the day. Bright seatbelts, a wide entryway, and ergonomic, easy-to-reach controls enhance comfort and safety – so crews can perform confidently, shift after shift.

WORK IN COMFORT
PERFORM WITH CONFIDENCE

SMART FLEET MANAGEMENT
STAY CONNECTED. STAY AHEAD.

Managing your fleet shouldn't slow you down. The Cat 321 comes equipped with technology, support, and services that put you in control, helping you make better decisions, reduce risk, and maximize uptime.

With Cat technology, service agreements, and the industry's strongest dealer network, you'll have the tools and support to keep your business moving forward with confidence.

CONNECTED INSIGHTS

VisionLink wirelessly connects you to your equipment, delivering real-time insights into machine health, fuel use, and productivity. Access data anytime, anywhere, whether from your desktop, tablet, or mobile device.

PROTECT YOUR INVESTMENT

Customer Value Agreements (CVAs) and Extended Protection Plans (EPPs) help you control costs, minimize risk, and keep your machine performing at its best.

DEALER SUPPORT

Your Cat dealer is your partner for the long haul, offering expert advice on machine selection, operator training, preventive maintenance, rebuilds, and everything in between.

INCREASE YOUR PRODUCTIVITY AND PROFIT

WITH CAT ATTACHMENTS

When your machine can do more, you can make more profit. Increase the versatility of your machine with any of the variety of Cat attachments. Each Cat attachment is designed to fit the weight and horsepower of Cat excavators for improved performance and stability.

BUCKETS

HYDRAULIC HAMMERS

TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model		Cat® C3.6
Net Power – ISO 9249	96 kW	129 hp
Net Power – ISO 9249 (DIN)		131 hp (metric)
Engine Power – ISO 14396	100 kW	134 hp
Engine Power – ISO 14396 (DIN)		136 hp (metric)
Bore	98 mm	4 in
Stroke	120 mm	5 in
Displacement	3.6 L	220 in³
Biodiesel Capability		Up to B20[1]

- Noncertified 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 2,000 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.

HYDRAULIC SYSTEM		
Main System – Maximum Flow – Implement	315 L/min	83 gal/min
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

SWING MECHANISM		
Swing Speed		10 rpm
Maximum Swing Torque	61 kN·m	45,260 lbf·ft

MACHINE WEIGHTS		
Operating Weight	19 300 kg	42,600 lb
4.1 m (13'5") Standard undercarriage, 5.7 m (18'8") Reach boom, R2.25 (7'5") stick, 1.0 m³ (1.31 yd³) General Duty (GD) bucket, 600 mm (24") triple grouser track shoes and 3650 kg (8,050 lb) counterweight.		
Operating Weight	19 700 kg	43,500 lb
4.25 m (13'11") Medium undercarriage, 5.7 m (18'8") Reach Boom, R2.25 m (7'5") stick, 1.0 m³ (1.31 yd³) GD bucket, 600 mm (24") triple grouser track shoes and 3650 kg (8,050 lb) counterweight.		

SERVICE REFILL CAPACITIES		
Fuel Tank	370 L	97.7 gal
Cooling System	22 L	5.8 gal
Engine Oil (with filter)	11 L	2.9 gal
Swing Drive	6 L	1.6 gal
Final Drive (each)	6 L	1.6 gal
Hydraulic System (including tank)	218 L	57.6 gal
Hydraulic Tank	115 L	30.4 gal

DIMENSIONS		
Boom	**Reach 5.7 m (18'8")**	
Stick	**Reach 2.25 m (7'5")**	
Bucket	**GD 1.0 m³ (1.31 yd³)**	
Undercarriage	**4.1 m (13'5") Standard**	
Shipping Height – Top of Cab	3250 mm	10.7 ft
Handrail Height	3010 mm	9.9 ft
Machine Length (with boom, stick, bucket installed)	9570 mm	31.4 ft
Tail Swing Radius	2830 mm	9.3 ft
Counterweight Clearance (without shoe lug height)	1020 mm	3.3 ft
Ground Clearance (without shoe lug height)	430 mm	1.4 ft
Track Length	4080 mm	13.4 ft
Track Length – Length to Center of Rollers	3270 mm	10.7 ft
Track Gauge – Undercarriage	2200 mm	7.2 ft
Transport Width – 600 mm (24") shoes	2800 mm	9.2 ft

WORKING RANGES AND FORCES		
Boom	**Reach 5.7 m (18'8")**	
Stick	**Reach 2.25 m (7'5")**	
Bucket	**GD 1.0 m³ (1.31 yd³)**	
Undercarriage	**4.1 m (13'5") Standard**	
Maximum Digging Depth	5970 mm	19.6 ft
Maximum Reach at Ground Level	9150 mm	30.0 ft
Maximum Cutting Height	9120 mm	29.9 ft
Maximum Loading Height	6250 mm	20.5 ft
Minimum Loading Height	2920 mm	9.6 ft
Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	5760 mm	18.9 ft
Maximum Vertical Wall Digging Depth	5360 mm	17.6 ft
Bucket Digging Force (ISO)	135 kN	30,280 lbf
Stick Digging Force (ISO)	119 kN	26,800 lbf

STANDARD AND OPTIONAL EQUIPMENT

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

ENGINE	STANDARD	OPTIONAL
Cat® C3.6 single turbo diesel engine	•	
Three selectable modes: Power, Smart, Eco	•	
One-touch low idle with automatic engine speed control (AEC)	•	
Two-stage fuel filtration system with water separator and indicator	•	
4000 m (13,120 ft) altitude capability with derate from 3000 m (9,840 ft)	•	
Up to 52° C (126° F) high-ambient cooling capacity with derate above 48° C (118° F)	•	
Down to –10° C (14° F) cold start capability	•	
100 Amp alternator	•	
Radial sealed double element air filter	•	
Electric fuel priming pump	•	

HYDRAULIC SYSTEM	STANDARD	OPTIONAL
Electronic main control valve	•	
Boom and stick regeneration circuits	•	
Automatic hydraulic warm-up	•	
Automatic two-speed travel	•	
High performance hydraulic return filter	•	
Hydraulic auxiliary lines (hammer)		•

CAB	STANDARD	OPTIONAL
Sound suppressed cab with viscous mounts	•	
Front windshield guard (wire mesh)		•
Mechanical-suspension seat with headrest and armrest angle adjustment	•	
High-resolution 203 mm (8") LCD touchscreen monitor	•	
Keyless push-to-start engine control	•	
AM/FM Bluetooth® radio with USB/ Auxiliary ports	•	
Cup holder and storage compartments	•	
Upper radial wiper with washer	•	
Openable steel hatch	•	
Washable floor mat	•	
51 mm (2") orange seat belt	•	

UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
4.1 m (13'5") Standard undercarriage		•
4.25 m (13'11") Medium undercarriage		•
Grease-lubricated track link	•	
Center track guiding guard	•	
Bottom guard	•	
3650 kg (8,050 lb) counterweight	•	
600 mm (24") triple grouser track shoes (8.5 mm/0.34" thick)	•	

BOOM, STICKS, AND LINKAGE	STANDARD	OPTIONAL
5.7 m (18'8") Reach boom	•	
2.25 m (7'5") Reach stick		•
2.5 m (8'2") Reach stick		•
2.9 m (9'6") Reach stick		•
Bucket linkage, B1 family with lifting eye	•	

ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Two 750 CCA maintenance free batteries	•	
Simplified electrohydraulic (EH) control system/harness	•	
Centralized electrical disconnect switch	•	
LED chassis and cab lights	•	
LED left-side boom light	•	
LED right-side boom light		•

CAT TECHNOLOGY	STANDARD	OPTIONAL
VisionLink™	•[1]	

SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
S·O·S℠ ports	•	
Radiator screen for radiator/oil cooler to prevent plugging by debris	•	

SAFETY AND SECURITY	STANDARD	OPTIONAL
Rearview mirrors; handrail mounted (one), cab handhold mounted (one)	•	
Bolt-free service platform with anti-skid plate	•	
Neutral lever (lock out) for all controls	•	
Ground-level accessible secondary engine shutoff switch in cab	•	
Handrail and handhold	•	
Signaling/warning horn	•	
Rearview camera		•
Travel alarm		•

[1] 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.

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at www.cat.com.

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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www.cat.com www.caterpillar.com

AEXQ4489-01 (05-2026)
Replaces: AEXQ4489-00
Build Number: 05A
(India)