



Cat[®] 324

Hydraulic Excavator

The Cat[®] 324 is built to handle high-production workloads with the perfect balance of brute strength and refined control. Its powerful Cat C7.1 engine, high-flow hydraulics, and advanced electrohydraulic system give you the muscle to move heavy material fast, without burning through your budget. With reinforced structures, field-proven durability, and easy-to-maintain components, the 324 is your go-to solution for tackling tough jobs with less downtime.

High Performance, Fuel Efficient

- The turbocharged Cat C7.1 engine with Cat filters offers high power density with a combination of proven fuel and air systems.
- Eco mode reduces fuel consumption with no loss in lifting or digging forces.
- Equipped with electrohydraulic control valve, pump and Engine Control Module (ECM) for better controllability and high fuel efficiency.
- The ECM ensures smooth, precise operation in every pass.
- Balance power and fuel efficiency using the Positive Flow Control (PVC) electro-hydraulic system.
- Use automatic engine speed control (AEC) during no-load or light-load conditions to automatically reduce engine speed to minimize fuel consumption.
- Electronic tandem hydraulic pumps deliver more efficiency with less internal friction losses and superior design.
- Boom and stick regeneration circuits reduce fuel consumption while improving cycle times.

Built for Long Term Production

- Move more material with a large 1.4 m³ (1.83 yd³) General-Duty bucket for earthmoving.
- Be more productive with a size class exclusive 1.3 m³ (1.70 yd³) Severe-Duty bucket for quarry to handle rock, gravel and abrasive material.
- Engineered for consistent reliability across long shifts and rough terrain.
- Cooling system capability of up to 48° C (118° F) for good performance in harsh environments.
- Standard high-ambient temperature capability up to 52° C (126° F) and cold start capability down to -10° C (14° F).
- The single plane cooling package design reduces air resistance compared to the traditional two-plane design for better cooling performance and enhanced machine productivity.
- Traverse the jobsite on the Grease Lubricated Track (GLT) 4.45 m (14'7") Long undercarriage.
- Work up to 3000 m (9,840 ft) above sea level without engine de-rating.
- Reinforced front structures and heavy-duty components help extend machine life in demanding terrain including an optimized Heavy-Duty boom and stick for longer life in quarry application.
- The single plate X-shaped, box-section car body provides excellent resistance to torsional bending, dissipating stress throughout the base of the machine.

- The heavy-duty base frame with improved weld treatment, weld toe control, and additional welds provides superior strength and durability.
- Undercarriage rollers are sealed to prevent dirt and debris from causing internal wear.
- Three available operating modes: Power, Smart, and Eco.
- The boom and stick structures are designed using high-tensile steel fabricated into a large box section using internal baffles to absorb torsional stress.

Reliability You Can Count On

- Caterpillar design and manufacturing techniques assure outstanding service life.
- Reliable and durable and built on classic, proven components.
- Robotically welded booms and sticks ensure structural integrity.
- Dig and lift from a stable platform created by the 4550 kg (10,030 lb) heavy-duty counterweight and heavy-duty eight-roller undercarriage.
- Long 4.45 m (14'7") undercarriage delivers excellent stability and ground contact, supporting versatile, high-productivity performance across a range of demanding applications.
- Hydraulic lines protected inside the frame reduce risk of damage.
- Auto warm up speeds up hydraulic oil warming in cold temperatures and helps prolong the life of components.
- The latest single-plane cooling package has better air flow, helping to reduce fan speed and save fuel in cooler conditions and lighter applications.
- Sloped track frame helps prevent mud and debris from accumulating in the track area.
- Grease sealed between track pins and bushings reduces travel noise and prevents debris from entering to increase undercarriage life.
- Thick braiding protects the colored, numbered electrical wires. Non-abrasive connectors keep wiring harnesses in place to prevent failure.
- Reinforced structures and upgraded undercarriages improve stability and durability.
- The Cat C7.1 engine provides cleaner, quieter operation while delivering superior performance and reliability through a high torque, low speed design.
- The advanced main control valve features an Electrical Proportional Reducing Valve (EPRV) manifold.
- Stackable auxiliary lines mounted at the side of the main valve for simplified hydraulic lines and valve configuration.



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Reduce Your Maintenance Time and Costs

- The 324 features a safe, convenient work platform for routine service and maintenance. Anti-skid plating with countersunk bolts reduces slip and trip hazards, while integrated grips on key areas ensure easy access to the platform and operator station.
- Shared components simplify maintenance and improve parts availability.
- S-O-SSM ports are on ground level, simplifying maintenance and allowing for quick, easy extraction of samples for fluid analysis.
- Extended and synchronized service intervals save on maintenance costs.
- Extended first engine oil change interval (500 hours), and maintenance-free batteries.
- Filters, such as fuel, engine air, and oil filters, are grouped together for easy access and preventative maintenance.
- There is no need to manually prime the fuel system after fuel filter changes. The standard electric priming pump reduces the risk of contamination by preventing unfiltered fuel from entering the fuel system.
- Maximize uptime and extended service intervals, thanks to advanced hydraulic oil filter design and no pilot and case drain filters.
- A two-stage fuel filter and anti-rust fuel tank help protect the engine against low-quality fuel.
- The Cat filters with interval time of 500 hours ensures smooth and contamination free filtering.
- Routine cleaning is made easier with the single plane cooling package design.
- Proven, high-efficiency radial seal engine air filter behind the cab. The machine constantly monitors the engine air filter and will notify you, via the monitor, when service is required.
- The latest air intake filter with pre-cleaner has double the dust holding capacity of the previous air intake filter.

Safely Home Every Day

- The latest cab provides excellent visibility from the operator's seat. In addition, two standard mirrors help keep you aware of your surroundings.
- Optional front windshield guard helps protect the windshield from potential damage caused by rocks, flying debris, and other road materials.
- Optional rearview camera enhances visibility behind the machine.
- Heavy-duty base frame and reinforced "X" car body meets ISO 15818:2017 lifting and tie-down requirements.
- The optional Rollover Protective Structure (ROPS) cab meets ISO 12117-2:2008 requirements.
- Handrails and hand hold are provided for easy access. The handrails meet ISO 2867:2011 requirements.
- Ground-level access for daily checks promotes safe and efficient work.
- Anti-skid plating with countersunk bolts reduces the potential for slippage and trip hazards.
- Serrated steps, anti-skid plating, and handrails provide stable access to the machine.
- A lockable disconnect switch isolates the battery by disconnecting the electrical energy when servicing the machine.

- The optional travel alarm provides a clear warning signal, alerting nearby individuals to the machine's movement and promoting a safe working environment.
- Bright seatbelts and a wide cab entry improve safety and usability.
- LED 1,200 lumen lights, a quiet muffler, and emergency cab exits support 24/7 operation.

Simple to Operate

- Start the engine with a push button.
- The in-cab high-resolution 203 mm (8 in) touchscreen monitor is easy to use, intuitive, and user-friendly.
- Continuously improved user interface allows for intuitive navigation, minimizing performance interruption with the easy-to-use touchscreen menu.
- The machine's electrohydraulic system allows accurate bucket control for maximum precision.
- Optimized low-effort joystick controls reduce operator fatigue.
- Customize joystick patterns and preferences; the machine remembers each operator's settings.
- Auto hammer stop protects tools from overheating and wear.

All Day Comfort

- Ergonomically designed seat to improve operator's comfort.
- Sound suppression, seals, and viscous cab mounts decrease noise and vibration for a quieter work environment.
- Standard automatic climate control helps keep you comfortable all shift long.
- Excellent work site visibility from the cab.
- Adjustable seat with three suspension levels and ergonomic design.
- Climate control, Bluetooth® connectivity, USB ports, and an intuitive interface enhance comfort.
- Control the excavator comfortably with easy-to-reach controls all located in front of you.
- Easy to access radio controls, engine throttle, wiper controls and Bluetooth phone pairing for operator convenience.
- Automatic climate control helps maintain consistent cab temperature. Five outlets ensure proper air circulation to keep you comfortable regardless of outside temperatures.
- There is plenty of room for you to store your gear. The cup holder and storage space in front of the controls can hold large cups and wide cell phones; storage behind the seat can hold a large lunchbox and other items.

Smart Fleet Management

- VisionLink™ wirelessly connects you to your equipment, giving you access to essential information you need to know to run your business. Gain valuable insight into how your machine or fleet is performing. Access data anywhere – desktop, tablet, or mobile device.
- Available CVA (Customer Value Agreements) and EPP (Extended Protection Plans) help maximize uptime and reduce risk.
- Cat dealers are second to none. From machine selection and purchase to maintenance support, operator training and rebuilds, Cat dealers have the experience and capabilities to help keep you up and running at peak performance.

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

	Standard	Optional
ENGINE		
Cat C7.1 single turbo diesel engine	✓	
Three selectable modes: Power, Smart, Eco	✓	
One touch low idle with auto 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)	✓	
52° C (126° F) high-ambient cooling capacity with derate above 48° C (118° F)	✓	
-10° C (14° F) cold start capability	✓	
75 Amp alternator	✓	
Radial sealed double element air filter	✓	
Electric fuel priming pump	✓	
HYDRAULIC SYSTEM		
Electronic main control valve, hammer ready	✓	
Boom and stick regeneration circuits	✓	
Automatic hydraulic warm-up	✓	
Automatic two speed travel	✓	
High performance hydraulic return filter	✓	
Hydraulic auxiliary lines (hammer)		✓
CAB		
Sound suppressed cab with viscous mounts	✓	
Rollover Protective Structure (ROPS)		✓
Operator Protective Guards (OPG)		✓
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	✓	

	Standard	Optional
UNDERCARRIAGE AND STRUCTURES		
4.45 m (14'7") Long undercarriage	✓	
Grease lubricated track link	✓	
Segmented track guiding guard	✓	
Full length track guiding guard		✓
Bottom guard	✓	
4550 kg (10,030 lb) counterweight	✓	
600 mm (24") triple grouser track shoes		✓
790 mm (31") triple grouser track shoes		✓
BOOM, STICKS, AND LINKAGE		
5.7 m (18'8") HD Reach boom	✓	
2.5 m (8'2") HD Reach stick	✓	
Bucket linkage, B1 family with lifting eye	✓	
ELECTRICAL SYSTEM		
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		✓
CAT TECHNOLOGY		
VisionLink™	✓ ¹	
SERVICE AND MAINTENANCE		
Grouped engine oil, fuel, and hydraulic oil filters	✓	
S-O-S SM ports	✓	
Radiator screen for radiator/oil cooler to prevent plugging by debris	✓	
SAFETY		
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		✓

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.

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Technical Specifications

Engine		
Engine Model	Cat® C7.1	
Net Power – ISO 9249	108 kW	145 hp
Net Power – ISO 9249 (DIN)	147 hp (metric)	
Engine Power – ISO 14396	112 kW	150 hp
Engine Power – 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 ECE 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.

Hydraulic System		
Main System – Maximum Flow – Implement	416 L/min	106 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	11.5 rpm	
Maximum Swing Torque	61 kN-m	45,260 lbf-ft

Weights		
Operating Weight	22 700 kg	50,100 lb
4.45 m (14'7") Long undercarriage, 5.7 m (18'8") Heavy Duty (HD) Reach boom, HD R2.5 (8'2") stick, 1.3 m ³ (1.7 yd ³) SD bucket, 600 mm (24") triple grouser shoes and 4550 kg (10,030 lb) counterweight.		

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

Dimensions		
Boom	HD Reach 5.7 m (18'8")	
Stick	HD Reach 2.5 m (8'2")	
Bucket	SD 1.3 m³ (1.70 yd³)	
Undercarriage	Long 4.45 m (14'7")	
Shipping Height – Top of Cab	3360 mm	11 ft
Handrail Height	3020 mm	9.9 ft
Machine Length (with boom, stick, bucket installed)	9520 mm	31.2 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)	440 mm	1.4 ft
Track Length	4450 mm	14.6 ft
Track Length – Length to Center of Rollers	3650 mm	11.9 ft
Track Gauge – Undercarriage	2380 mm	7.8 ft
Transport Width – 600 mm (24") Shoes	2980 mm	9.8 ft

Working Ranges and Forces		
Boom	HD Reach 5.7 m (18'8")	
Stick	HD Reach 2.5 m (8'2")	
Bucket	SD 1.3 m³ (1.70 yd³)	
Undercarriage	Long 4.45 m (14'7")	
Maximum Digging Depth	6310 mm	20.7 ft
Maximum Reach at Ground Level	9470 mm	31.1 ft
Maximum Cutting Height	9330 mm	30.6 ft
Maximum Loading Height	6280 mm	20.6 ft
Minimum Loading Height	2590 mm	8.5 ft
Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	6120 mm	20.1 ft
Maximum Vertical Wall Digging Depth	5620 mm	18.4 ft
Bucket Digging Force – ISO	139 kN	31,250 lbf
Stick Digging Force – ISO	109 kN	24,500 lbf

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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